BROOKLYN HOSPITAL
BROOKLYN, N.Y.

The MODERN HOSPITAL

Vol. VII *November, 1916* No. 5

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Building, Equipment, and Administration of Hospitals, Sanatoriums, and Allied Institutions, and to their Medical, Surgical, and Nursing Services

Vol. VII *November, 1916* No. 5

BROOKLYN'S OLDEST HOSPITAL BUILT ANEW

Group of Buildings Designed According to Latest Accepted Rules of Architecture Is One of the Show Places in the City—Some of the Details

By Dr. W. J. NEALLEY, Superintendent, and Mr. J. MONROE HEWLETT, Architect

BROOKLYN'S oldest hospital has, during the past two and one-half years, been completely rebuilt on the original site, an elevation overlooking the city and harbor of New York, close to the business center of Brooklyn, and adjoining and forming practically a part of Fort Greene Park.

There are 289 beds, apportioned as follows: private rooms, 38; private (4-bed) wards, 54 beds; public wards, 191 beds; isolation, 6 beds.

ADMINISTRATION BUILDING

Basement—X-ray department.

Ground floor—Main office.

Second floor—Maternity wards, extending back into the north pavilion, where the delivery rooms are located.

Third floor—Private obstetrical rooms and wards.

Fourth floor—Quarters for female officers (heads of departments).

Fig. 1. Brooklyn Hospital. Bird's-eye view of the buildings.

NORTH PAVILION

Basement—Drug room, storage rooms, and lecture room.

First floor—Trustees' room, offices for superintendent and directress of nurses, visiting staff room, history record room, and stenographers' office.

Second floor—Maternity delivery rooms (with soundproof partitions) and duty rooms.

Third floor—Operating suite.

Fourth and fifth floors—Interns' quarters.

EAST PAVILION

First floor—Private wards for women.

Second, third, and fourth floors—Private rooms, each connecting with a balcony.

Roof—Large solarium.

WEST PAVILION

Ground floor—Ambulance and service entrances. South wing, emergency wards and treatment rooms; north wing, main kitchen, diet kitchen, and help's dining rooms.

First floor—Dining rooms for doctors, nurses, and clerks, served from a central serving room (above the kitchen); south wing, private wards for men.

Second floor—Surgical and medical wards for women.

Third floor—Surgical and medical wards for men.

Fourth floor—Children's wards.

NURSES' HOME

Basement—Diet class room, lecture room, small laundry for individual use, and trunk room.

First floor—Library and reception rooms, quarters for officers of the training school.

Second, third, and fourth floors—Pupil nurses' rooms, each nurse having a single room.

Fig. 2. Brooklyn Hospital. Typical floor plan, public ward building.

The nurses' home is connected with the nurses' dining room, which is located in the west pavilion, by means of a private corridor shown on the ground plan.

POWER BUILDING

Basement—Boiler and engine rooms, refrigerating plant, ice plant, vacuum cleaning machine, water filters, and generators.

First floor—Laundry and linen rooms.

Second floor—Quarters for male help.

Third floor—Quarters for female help, each one of the help having a separate room.

The pathological department adjoins the west pavilion, and occupies two floors, each 35 by 30 feet.

A garage adjoining the power building accommodates at present two gasoline ambulances and one horse ambulance.

The buildings are heated by forced hot water circulation, except the operating and delivery suites, which are heated by steam.

The floors in the wards and private rooms are of terrazzo, so paneled that the joints come over beams so as to eliminate cracks as far as possible. Countersunk linoleum is used in the centers of the large wards. The dormitory floors of the nurses' home, also help's quarters, laundry, and service department of the hospital are of cement. Red tile 6 inches square is used in the main kitchen and diet kitchen. The floors and walls of the operating rooms are of gray tile.

All wards and private room floors have blanket warmers, the duty rooms have ventilated closets for utensils, and the examining room sinks have elbow control for the faucets.

Fig. 3. Brooklyn Hospital. Children's ward, showing roof promenade.

Each bed has a silent call system connection to summons the nurses, and the megaphone system is used for calling the doctors.

The floor lights in the wards, installed with some degree of hesitancy, have proved most satisfactory. They are built in the floor construction to a depth of about 10 inches, and are 11 inches in diameter, 8 inches of which is glass. The top can be removed for cleaning or renewal of bulb. The sides are painted white and a 10-candle-power bulb gives sufficient light for the nurses to move about the ward and not enough light to disturb the patients.

There is sufficient balcony and solarium space to allow every patient to be moved out of doors. There are spacious lawns for convalescents, and also a tennis court for those who desire to participate in that pastime.

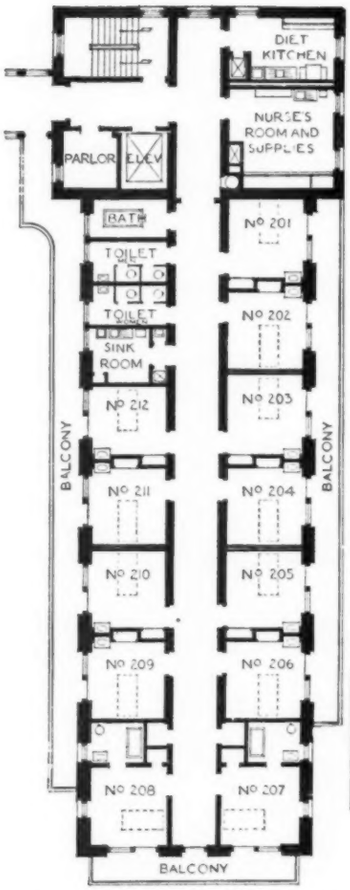


Fig. 4. Brooklyn Hospital. Typical plan of private room floor.

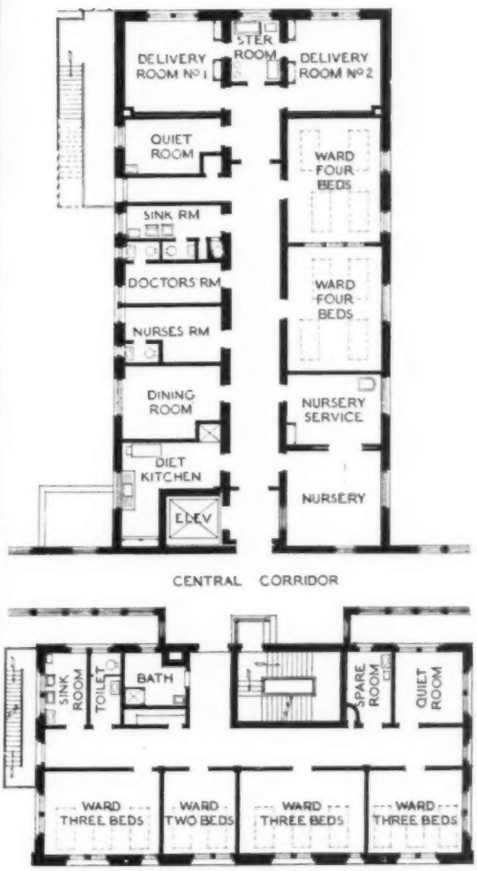


Fig. 5. Brooklyn Hospital. Delivery room and maternity ward floor.

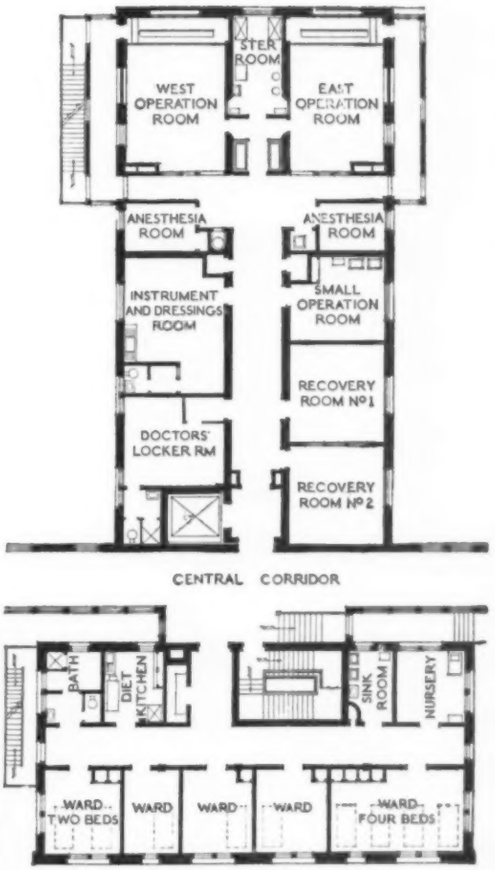


Fig. 6. Brooklyn Hospital. Operating suite and private maternity floor.

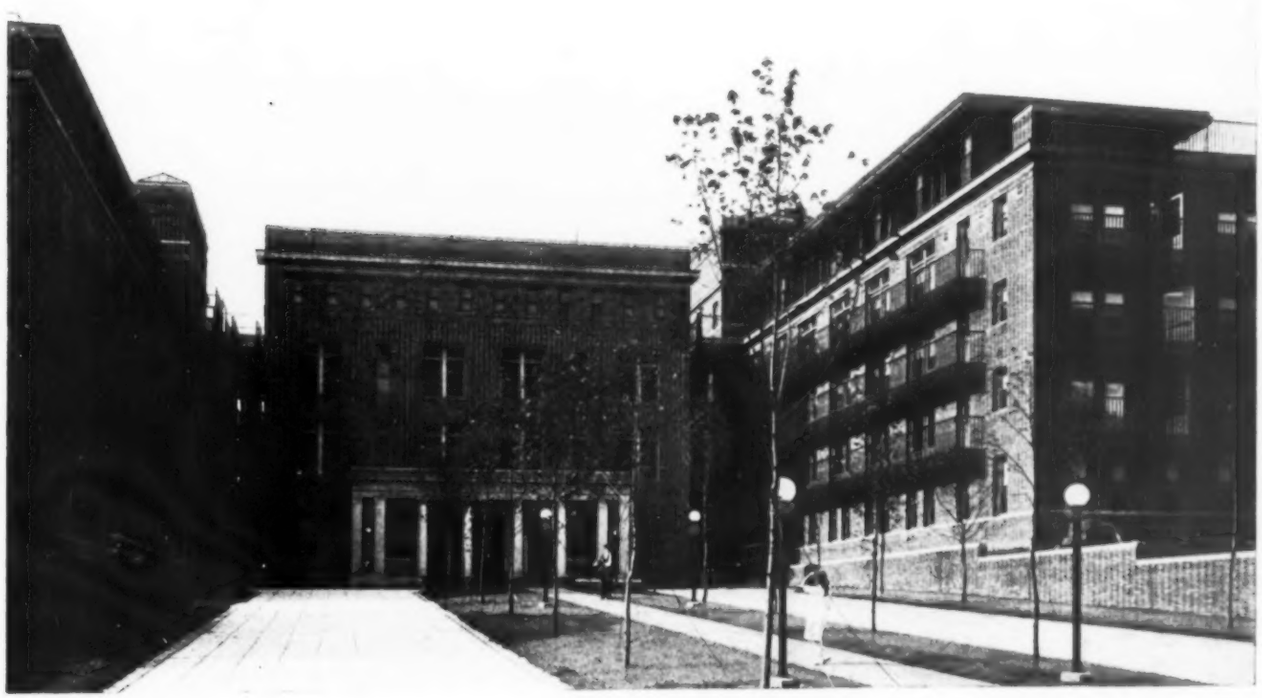
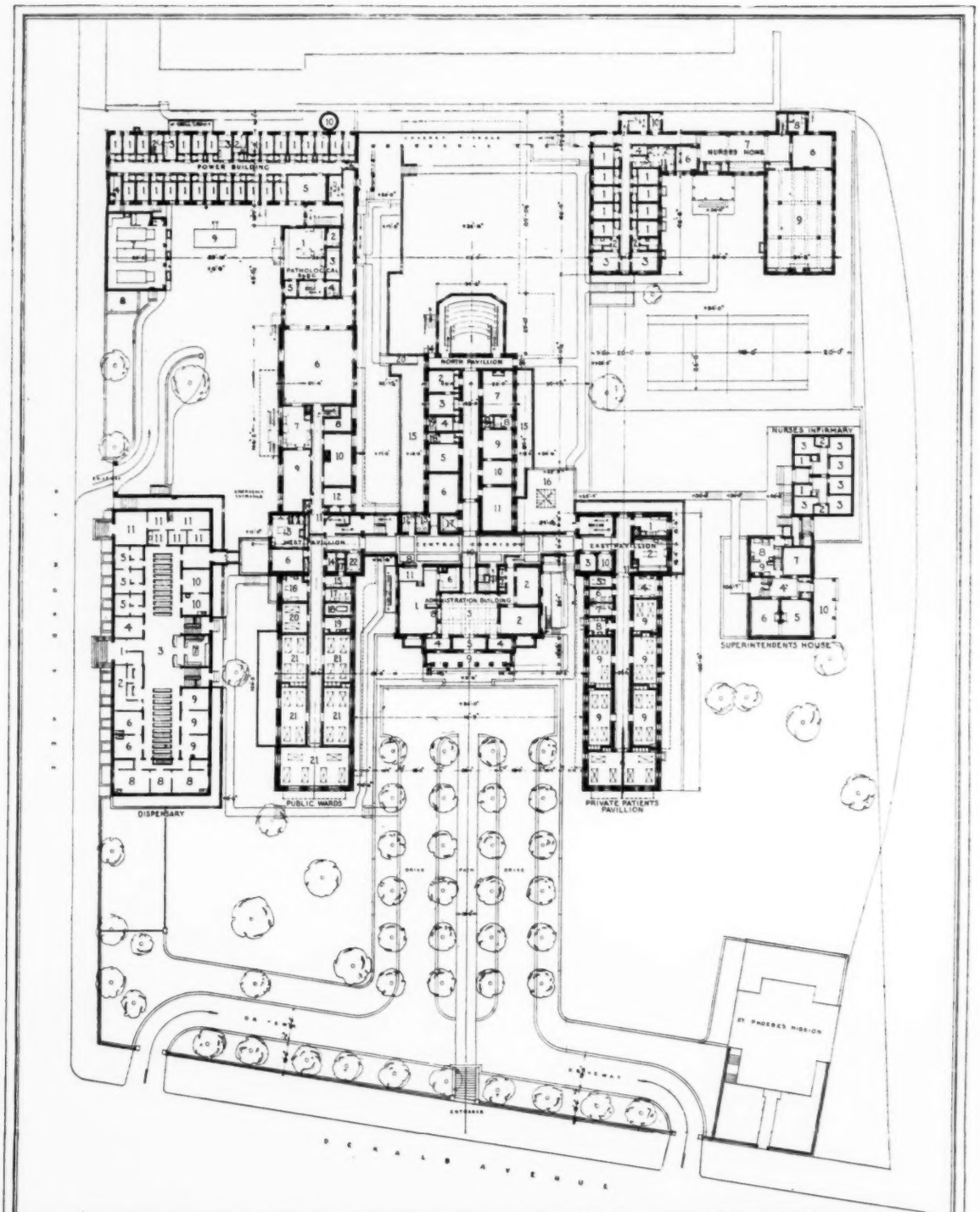


Fig. 7. Brooklyn Hospital. Showing screened balconies for ward patients. These balconies serve also as fire escapes, connecting adjoining buildings at all floors, obviating the necessity of fire escape stairways.



GENERAL PLAN
SCALE IN FEET
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THE BROOKLYN HOSPITAL
RAYMOND ST AND DE KALB AVE
BROOKLYN NEW YORK

LORD HEWLETT AND TALLANT
ARCHITECTS
345 FIFTH AVE. NEW YORK, N.Y.

WEST PAVILLION AND PATHOLOGICAL BLDG.

1 LABORATORY	12 HOUSEKEEPERS OFFICE
2 DARK ROOM	13 DIET KITCHEN
3 BACTERIOLOGY	14 LINEN
4 LAVATORY	15 NURSES ROOM
5 OFFICE	16 EXAMINATION ROOM
6 DINING ROOM	17 LAVATORY
7 SERVING ROOM	18 BATH
8 DIETITIANS OFFICE	19 SINK ROOM
9 OFFICE HELP	20 QUIET ROOM
10 INTERNES	21 WARDS
11 CLOTHES CHUTE	22 ELEVATOR

NORTH PAVILLION

1 LECTURE HALL	12 MENS TOILET
2 DIRECTRESS OF NURSES	13 WOMENS TOILET
3 ANTE ROOM	14 FIRE ESCAPE
4 OFFICERS LOCKERS	15 AREA
5 VISITING STAFF ROOM	16 FUMIGATION ROOM
6 WOMENS WAITING ROOM	17 ELEVATOR
7 TRUSTEES	18 LAVATORY
8 LAVATORY	19 LAVATORY
9 SUPTS OFFICE	20 INCLINE
10 STENOGRAPHERS ROOM	21 TRUSTEES CLOSET
11 LIBRARY	22 SUPTS CLOSET

DISPENSARY

1 VESTIBULE
2 OFFICE
3 HALL
4 SERVICE
5 MEDICINE
6 SURGERY
7 DRUGS
8 SURGERY
9 ORTHOPEDICS
10 GASTRO ENT
11 G.U. DEPARTMENT

NURSES' HOME

1 BEDROOM
2 BATH
3 LIVING ROOM
4 LINEN
5 LAVATORY
6 RECEPTION ROOM
7 RECEPTION HALL
8 PANTRY
9 LIBRARY
10 ELEVATOR
11 CLOTHES CHUTE

EAST PAVILLION

1 DIET KITCHEN
2 NURSES ROOM
3 RECEPTION ROOM
4 EXAMINATION ROOM
5 BATH
6 MENS LAVATORY
7 WOMENS LAVATORY
8 SINK ROOM
9 WARDS
10 ELEVATOR
11 CLOTHES CHUTE

ADMINISTRATION BLDG.

1 MAIN OFFICE
2 RECEPTION ROOM
3 LOBBY
4 ANTE ROOM
5 VESTIBULE
6 VAULT
7 TELEPHONE
8 COUNTER
9 PORCH
10 CENTRAL CORRIDOR
11 PLATFORM

POWER BUILDING

1 BEDROOM
2 BATH
3 LAVATORY
4 LINEN
5 LOUNGING ROOM
6 TRUNK LIFT
7 GARAGE
8 ANIMAL HOUSE
9 SCALES
10 MAIN BOILER FLUE
11 TO NURSES CORRIDOR

NURSES' INFIRMARY

1 BATH
2 DIET KITCHEN
3 BEDROOM

SUPTS' HOUSE

4 HALL
5 LIVING ROOM
6 STUDY
7 DINING ROOM
8 KITCHEN
9 BUTLERS PANTRY
10 PORCH

Fig. 8. Brooklyn Hospital. General plan.

Fig. 9.

Fig. 10.

Figs. 9, 10. Brooklyn Hospital. Showing screened balconies for ward patients and individual balconies for private rooms, overlooking the park.

Fig. 11. Brooklyn Hospital. Dispensary. The building has forty-two rooms for examination and treatment of patients, the basement being used for orthopedic brace shop, plaster room, and gymnasium.

Fig. 12.

Fig. 13.

Figs. 12, 13. Brooklyn Hospital. Typical ward, showing curtains on wires (used for screening the beds); floor light, which is burned at night, thereby doing away with the nurses' lanterns; solid transoms, windows to floor, silent call system for nurses; terrazzo paneled flooring, with countersunk linoleum center; indirect lighting.

THE CONVALESCENT INSTITUTION—METHODS—RESULTS[1]

Selection of Patients—Length of Stay—A Sample Convalescent Day—The Cycle of Convalescence—Sexes—Visitors—Diets—Medical Attendance—Work Therapy—Play Therapy—Preventive Convalescence

By FREDERIC BRUSH, M. D., Superintendent The Burke Foundation, White Plains, N. Y.

THIS brief paper, to be effective, should be taken as supplement to the one entitled "The Convalescent Field," appearing recently in THE MODERN HOSPITAL, and dealing with the needs and kinds of convalescence; also in conjunction with the Burke Foundation annual report of 1915-16.

We may at the outset assume rest, high-feeding, ample outdoors, sympathetic care, etc., in all convalescent homes, and proceed at once to consider only the most important phases in this developing branch of public health—the advances and the main problems.

Several great endowments are at this time awaiting application in the convalescent field. Their directors are wisely proceeding very slowly. They feel, for one reason, that the older standard type of "home" fails to give the model—the adequate full motive. The problem crystallizes as follows: *With social service accomplishing what it clearly does at 75 cents, or less, per-day-capita, the convalescent institution must show irrefragable cause to exist and spend $1.50.* The Burke Foundation is urging each of these groups to select measurably separate fields—the opportunities exist.

To have a program, an ideal, a plan, is of the first importance. This Foundation, for instance, applies itself to workers, producers, persistent triers in life, who cannot fairly pay—those reconstructible into wage-earners, home-makers, citizens. Through exceptional plant and equipment it is enabled further to accept constantly the more difficult convalescent cases; and, thirdly, by steady experiment at a considerable expense, to extend convalescent paths for others to follow—as with cardiacs, hyperthyroids, observation nerve and mentals, drug addicts, recent surgery, etc.

Much has been said about making all convalescent places homelike. But we are frankly institutional, and accomplish most in our line by being so. The majority of convalescents have been pampered, overindulged; it is the most malleable condition in life. Doctors, nurses, and friends at this time start the makings of neurasthenics and dependents, and convalescent homes not infrequently promote this deviation.

Patients are from the first fully immersed in our strong atmosphere, the "spirit of the Burke Foundation," one of self-help, self-respect, self-mastery, and the urge to normal life—a spirit that palpably exists, and is more important than buildings, air, food, rest, etc. We shock certain patients at the outset, and gain thereby a week or two of mental progress. Effects are comparable to those of the college on youths, only swifter and more gratifyingly measurable with this most impressionable group.

In this relation our nonpay provision is proving very important. It gives unexpected power for good. With this control of the selection and behavior of patients, a large health plant can be gradually upbuilt that may be actually more efficient than the well-known expensive ones of Europe.

Selection of patients.—Of importance equal to their care, and the main weakness in most convalescent home workings. No excellence in treatment can make up the wastage of a faulty choice. An admitting office or person, given a plan and full authority, is essential to best results. Various unfair influences always need repressing at the admitting end. Even the president of our institution insists, when recommending an applicant, upon an impartial decision.

Our admission office is further made to function widely in the city's public health. Through admission alone a home may become a most attractive stopping place, and at the same time a partial failure in convalescence. Social service departments choose best—doctors worst.

Length of stay.—Each patient should be judged individually as to this, which means frequent examinations, reports, and trained judgments resulting from many factors. Some leave us rightly in six days—others after four months. The set period is a serious and prevalent weakness of our "homes," wronging both the patients and the funds.

A sample convalescent day.—Patient rises before 7, walks or plays with companions in the open, breakfasts at 7:30, rests out awhile, gets surgical dressing done, joins a group in some productive occupation, rests or plays, walks before noon dinner, then rests and sleeps on bed two hours (compulsory), reads, plays, or works until supper at 5, is out of doors till evening entertainment or dance, and to bed at 8:30 or 9. Inclosed

[1]Discussion before the eighteenth annual conference of the American Hospital Association, Philadelphia, September 26-29, 1916.

places and extensive dry walks and sunny terraces make for like conditions in winter.

A cycle of our best convalescence.—Patient selected in hospital bed when half through illness, and instructed how to benefit from us, home matters arranged, patient sent as early as can be transported, induced to cooperate unreservedly while here, couraged and molded and studied frequently, and kept until beginning desire to reenter normal life, sent back with follow card report and advice to social service department (which has the work and living arranged); and then perhaps reported back to us months later as holding at a higher point of health and success than in years previous.

Fig. 1. Men and women patients in a golf tournament.

The democratic spirit.—Planned for, held to insistently, curative. Special placings, favors, exceptions, etc., are but sparingly granted; the place kept wholesomely middle-class good; and all — peddler to preacher and patrician, Gentile, Jew and mongrel, made to enter positively into our uptending life. Ours is not a passive place.

Patients have thought they were misplaced, and going to leave us next day; but they have usually stayed and learned perchance some simpler, better ways of looking and living—got soul-convalescence. Remember that in the best times of any life, class distinctions sink away into gray background.

Sexes.—Many advantages of having both in one institution. The difficulties are minor and administrable. The biplay of sex association is decidedly convalescent. Dancing, for example, is the best of all recreations. Men and women should dance together. A woman who cannot walk will dance—then she walks. The first stages of flirtation (the limit in the institution) induce more right posture and manners and red cells and courage than all the mechanotherapy or lectures on how to live.

Visitors.—Visits to patients have been stopped after full trial and gradual reductions. Their ill effects considerably overbalanced their good; main consideration being that the mental therapy, so essential in this work, applies better without them. Individual exceptions are freely made, of course.

Diets.—But little individualized. This is part of the plan of normalizing. About a third come to us ready to become post-graduate food cranks. "The doctors have said so and so;" "I can't eat this and that;" "here is my list," etc. The answer is definite: "Eat like a going human being; you have wide choice at our table; extend the variety; surprise your stomach; we will stand for the results." The worst are starved a day or so. Results of this method are excellent, and its psychology is important. Ten tons of weight were added to our patients last year. They eat astonishing quantities —our food cost holds up around 40 cents.

Fig. 2. Patients playing base ball. A match between rival cottages.

A valuable medical test results here; a persistent digestive trouble, under our rejuvenating conditions, almost invariably points to faulty or incomplete diagnosis, and saving redirection follows. Extra milk, and much olive oil in one- or two-ounce "cocktails," are given between meals to many, but only on prescription.

Results answer—e. g., 350 gastric and intestinal ulcer cases, mostly operated, have been convalesced, on but moderately restricted feeding, with nearly uniform success. Special dieting may well be done in the convalescent institution, but it should be kept narrowly apart for reasons above indicated. Food fussiness is one point of attack on neurasthenia.

Medical attendance.—A minimum for safety and comfort best in the convalescent institution; return at once patients needing hospital care.

Fig. 3. Women patients, jolly haymakers, in Burke Foundation fields.

This avoids duplicated efforts, and reacts valuably on the senders. Much doctoring and drugging directly counter the spirit we must create. For this reason routine physical therapy even, should be entered on cautiously. We throw away most of the bottles, and have a St. Anne's collection of crutches. One soon learns that convalescence, at its best, is fully half mental. Let the institution be "one thing or the other." A full paper might be presented on this subject.

Work therapy.—The convalescent place has the most difficult occupation problem because of the short average stay (three weeks). Our occupation is considered not chiefly diversional, but remedial, reconstructive, curative, convalescent—normalizing. It is not a side issue; it costs; it is our best medicine. It is prescribed, in writing, for more than one-fourth—cardiacs, hyperthyroids, choreics, all the border mental and nerve folks, the inherently restless, all long stayers, the temperamentally difficult, the quitters, the pampered, the disheartened.

"The doctor said I could not work in three months;" "I have done nothing for the past year;" "They told me to go and rest as long as you would keep me;" "I cannot do anything because I have"—this or that. Our answer is work, supervised, graduated, moderate, giving quickly finished products. The patient never dominates; some who threaten to leave become later most appreciative. They are led to see that it is treatment—with a reason, and results. The city sources are helping. "Don't whine or kick up there; do as they wish and you will come back well; they have no motive but to restore you"—they instruct.

Results of the work cure, plus mental therapy, in selected cases are not so vague and unmeasurable as thought. They are in most instances definite and remarkably good. We have records of these people back at normal living. We are knowing that they were not lazy—only misled, mismanaged, misenvironed.

Play therapy.—It does not suffice to provide apparatus; steady direction is needed. Tournament and group play are most valuable. We note often the good effect of one new outdoor game added to a narrowed life. The psychology is interesting; for instance, it is worth while to have men patients play a little baseball, even of a staggery or dyspneic kind—it seems to signify recurring manhood to an American. I have first "got hold" of certain fear-ridden men through this best of games. Our cardiacs play it before graduation. An athletic field is essential equipment for convalescence.

Preventive convalescence.—In this undeveloped field lies mainly the justification of more and larger institutions. The term is somewhat inadequate—what is meant in practice? What are the facts? One hundred persons are sitting on the benches of a large dispensary; three to six of these should be sent out to a reconstructive country institution. Instead they will be given stock prescription repeats, some words, and be sent home. And note the one preventive convalescent in the street car group. Under every employer a small

percentage of workers are always tiring and failing. Many women of all ages are approaching health-break in their homes. Middle-aged men in all walks are feeling here and there the hopeless settling under cumulative permanent fatigue. Home convalescence, so feasible in many conditions, fails here. Nothing yet devised equals the convalescent institution in remedying these and like borderline states. The rejuvenation may hold for years.

Formative convalescence.—The upbuilding of cardiacs, neurasthenics, the pretubercular, hyperthyroids, and moderate defectives of various kinds are suggested hereunder. Youth is generally the favorable time for the effort. Making dependents and incompetents over into limited producers is worth while.

These two lines are in progress. The usual trained sources, along with department stores, contractors, clubs, hotels, industrial and public service corporations, etc., are learning to choose and send these people to us for preventive and formative convalescence. The dispensaries, which will be the chief sources in time, are as yet rather unresponsive. Along these lines the convalescent field needs most extension.

Results.—Nothing else known to medicine equals the effects of a fitting vacation. Weight and strength gains, blood enrichment, and the storage of nerve and other reserves would be thought wellnigh miraculous if brought about by some specific or less homely and natural means. Though a majority probably of American vacations are partial failures or worse, here remains a great medical fact—and quite underappreciated. Medical teaching essentially ignores it. A live example will best clinch this. Last year I had low weight, a spot of pleurisy, and several subnormalities. In three and one-half weeks of right vacation (for me) I gained twenty pounds and full vital reservoirs. I have ten of the pounds left, and it will be a year before I shall need even preventive replenishment (which proved that I am an expert in convalescence). No specific remedy even ever parallels such a result. Vacationing will yet be given more scientific direction. On this truth the convalescent institution basically rests; it is solid foundation.

Taking, then, the most effective restorative agency known, they adapt it to the half-sick, the handicapped and subnormal, the failing, the depressed. In such institution the patient goes under the expert in vacationing—*conditioning for daily life.* Sleep, exercise, rest, feeding, amusements, diversional and hardening occupations, companionships, care of minor ills, mental and moral slants, home betterments at the same time, and future employment, are all studied and adjusted to the individual (placed free from money worry)—and the results are inevitably and inspiringly good. A successful convalescence sends the person away with the glowing eye of the ten-year-old—"the Burke Foundation eye," the social workers have come to call ours; or the "Burke Foundation face"—smoothed, smiling, courageous.

It is clearly seen that home convalescence, though of first importance and yet to be better managed, cannot substitute for a large amount of institutional convalescence, even as the field is now, partly undeveloped. And the before-mentioned preventive and constructive phases will demand institutions even more.

Finally, the *main question—what is the product* of these institutions and of this rather large expenditure per person? First, of course, great numbers of speedier and completer recuperations of the acutely ill. (And it should be said here that the lasting qualities of this standard convalescence are well known to those in the work—and important justification.) Now come the newer long-term and more testing phases, giving (ever with a small percentage of failures) end-products, which may be indicated as follows: cardiacs who have been much in hospitals and dependence strengthened to maintain steady occupation (cardiac youth especially successful and economically important); early nervous and mental borderliners of many kinds, turned back, by occupational and mental therapy principally, to fair livability and content; drug addicts, after the special treatment, likewise built up to point of hopeful retrial; rheumatics, in limited selection, given long terms, particularly for their hearts' sake, and at last sufficiently toughened for competition by graduated play and work; choreics, especially if young and in first attacks, discharged cured in six to ten weeks, and recurrences diminished; various subnormal youths set forward with weight, blood, nerve, posture, and character and educational additions that are fairly permanent; protracted surgical dressing cases in large numbers carried to earlier and solider healing plus hardening for work; operation avoided in some selected pelvic and like subacute inflammations; hyperthyroidism afforded long rest plus nerve and heart training with notably worthy results; nonpulmonary tuberculosis, quiescent pulmonary and the pretuberculous periodically reinforced for their continuing battle; pleurisies given especially long upbuilding; and a steadily increasing output of purely preventive and holding recuperations—these are some of the better and harder things now being done in convalescent institutions. Extensions are in prospect.

THE HOSPITAL AND THE SURGEON

The Making or Training of the Surgeon—The Selection of the Staff Surgeon—His Compensation—Promotion of Surgical Work—Regulation or Control of the Surgeon—Hospital Monopoly

By S. S. GOLDWATER, M. D., Superintendent Mt. Sinai Hospital, New York

[Continued from October issue.]

III. AIDING THE SURGEON

Successful hospital surgery depends on many factors which are controlled by the hospital rather than by the surgeon. Hospital managers should appreciate the importance of these factors, and should see to it that the visiting staff are properly aided. Various measures designed to promote the success of the surgical department will now be considered.

The Choice of Assistants.—The choice of the assistant visiting staff rests usually with the hospital management rather than with the visiting surgeon. On the supposition that hospital control is best intrusted to an impartial lay board, one must assent to the choice of the visiting surgeon's assistants by the trustees. I have already pointed out the possibility of a system of cooperation with the medical staff in the nomination of eligible candidates for the position of visiting surgeon which, while reserving to the trustees the final choice, nevertheless insures due regard for enlightened professional opinion. The system described may advantageously be followed, also, in the appointment of assistant visiting surgeons, with the proviso that the medical men serving on the conference committee shall include the chief of the service with which the assistant visiting surgeon is to be identified.

Laboratory Cooperation.—The hospital surgeon may be aided or hindered by the pathological department. For the sake of both surgeon and patient, the hospital is bound to provide a well-equipped and well-manned pathological department. In hospitals having a large surgical service it is desirable that the equipment necessary for the preparation of sections for diagnostic purposes be provided in a room adjoining the operating room, and that a pathologist be at hand during operating hours. Apart from the performance of routine diagnostic work, the laboratory must be ready to prepare microscopic sections extensively for study, must be ready to perform autopsies promptly and satisfactorily, and should make it a point to arrange such autopsies at a time which is convenient to the surgeons concerned, since a post-mortem examination in a surgical case loses much of its value to the hospital if performed in the absence of the surgeon.

Radiography as a Diagnostic Aid.—From the standpoint of diagnosis the importance of the radiographic department to the surgeon is inestimable. Hospital radiology has been seriously handicapped because of the hesitancy of hospitals to devote large sums to the support of this comparatively new department. There is no logical reason why the radiographic department should be singled out as one to be placed on a self-supporting basis—a poor patient is no less deserving because he happens to require a costly x-ray examination. It is significant, however, that in almost every instance in which a hard-pressed hospital has endeavored to make its x-ray department self-supporting, the effort has succeeded. From the surgical standpoint it is essential that the radiographic department be properly equipped and organized, and experience has shown that, by one means or another, it is practicable to accomplish this in any hospital.

Photography to be Provided.—Though of relatively minor importance, photography as well as radiography should be made available to the surgeon; photography in connection with surgery has a medico-legal as well as a scientific value.

Administrative Problems in Relation to Anesthesia.—The surgeon is greatly dependent on the anesthetist. The risks of anesthesia should not be disregarded, and will not be underestimated by anyone who has encountered fatal idiosyncrasies in patients. In a difficult case the skill of the anesthetist may be of no less importance than that of the surgeon himself. Perhaps the most common hospital practice is to utilize the interns as anesthetists. This means a frequent change in the office of anesthetist; the only advantage of the system is to provide a moderate degree of training and experience in this field for a comparatively large number of men. From the standpoint of medical education, the hospital ought not to discontinue the training of its interns in anesthesia, but such training should not consist in mere unregulated experience, acquired at the expense of patients. A competent instructor should be provided, and the intern should not be left to his own devices until his competence is assured.

The Nonmedical Female Anesthetists.—The tendency of the time is away from the use of the intern as anesthetist and toward the employment of permanent anesthetists. It is supposed that through continuous practice a high degree of skill will be developed; hence paid resident

anesthetists holding medical degrees have been appointed. This is a rather costly expedient; moreover, the medical anesthetist who acquires a local reputation is soon tempted to abandon the hospital in order to engage in lucrative private practice. The cost of a competent male medical anesthetist and the difficulty of holding him in the service of the hospital have led in some cases to the employment of women anesthetists who are commonly graduate nurses with operating room training. Eminent surgeons express themselves as satisfied with the service performed by such women, and argue that women are naturally better fitted for the work than men, quite apart from other considerations.

The Legal Status of the Nurse as Anesthetist.—As yet the number of court decisions on record is not sufficient to show whether graduate nurses may, with impunity, practice as anesthetists. The opinion of lawyers in New York state is that surgeons may employ women in the capacity named, but that in doing so they, the surgeons, assume liability for the result. If the administration of anesthetics is a part of the practice of medicine, anesthetics may be administered only by responsible licensed physicians. If a surgeon chooses to employ an anesthetist having no legal medical qualification, he thereby tacitly assumes full responsibility for and undertakes to control the anesthesia, the anesthetist being regarded merely as his technical assistant. This aspect of the matter is presented because of the practical considerations involved. I refrain from introducing at length the opinions of legal authorities, but feel bound to point out that wherever the legal status of the anesthetist is doubtful, the hospital owes it to the surgeon to adopt a system under which both surgeon and anesthetist are protected.

The Need of an Active Consulting Staff.—No surgical service can be regarded as satisfactorily conducted which does not systematically consult with an internist as well as with other specialists, medical or surgical, whose advice may be required. Experience has shown that a consulting staff which does not visit the hospital daily is not as serviceable to the surgeon as a regular visiting staff. The surgeon who is most advantageously placed (it would perhaps be more logical to speak of the advantageous position of the patient) is one who is connected with a general hospital the organization of which includes representatives of all the recognized branches of medicine and surgery.

The Nursing Staff.—The surgeon, as we have seen, is largely dependent on the pathologist, the radiologist, the anesthetist, the internist, and other consultants. Another indispensable auxiliary is the nursing staff. Both in the operating room and in the post-operative care of patients in the wards the surgical nurse plays a very important role—just how important may be inferred from the fact that an eminent surgeon has recorded the opinion that his success in practice has been due more to the ability and loyalty of his nursing assistants than to any other single factor. The hospital, through its training school, is responsible for the education of its surgical nurses; they must be satisfactory in quality and sufficient in number.

Special Nurses.—The inelasticity of the average nursing organization is a drawback. The need for nurses in the surgical wards varies from hour to hour, and efforts must be made to respond to this variable demand. One expedient is to employ a certain number of extra nurses or "floaters," ready for assignment to any ward where the pressure is momentarily great. The hospital should be willing to employ special nurses whenever the nursing requirements are such that the regular ward force is unable to meet them.

Clinical Records.—It is a matter of common observation that clinical records are not as complete in surgical as in medical wards. Whether clinical records are well or ill kept depends primarily on the surgeon. But while the making of the record depends on the surgeon and on his control over his assistants, the filing of the record is a matter of hospital administration. In this department centralization is the avenue to success; centralization implies, of course, a record room, filing devices, and a paid registrar, and these it is clearly the duty of the hospital to provide.

Reciprocity Among Hospitals in Regard to Records.—In large cities a patient may be successively treated in a number of institutions. When this occurs, the hospital which was first to handle the case owes a complete record to the institution which undertakes the later treatment. Reciprocity in these matters is now satisfactorily established in many communities, but satisfactory service is not feasible in the absence of a suitable organization in the record room. That there can be no satisfactory collation of clinical data for scientific study without proper filing and indexing is obvious. In the choice of nomenclature, standard classifications which are in general use should be preferred.

"Continuous" Service—Rest and Travel.—The interests of surgery itself demand that the surgical service of the hospital shall be of the "continuous" variety. This does not mean that the chief of staff must be on actual duty every day in the year, but that his control over the service shall be continuous; due allowances must, of

course, be made for necessary periods of recreation, including periods for rest, travel, and study. The most successful surgical organization in the United States is perhaps the least self-centered. Its members make a point of informing themselves concerning the activities of other clinics throughout the country and abroad; this is accomplished by means of traveling representatives. This spirit of interest and method of observation are worthy of emulation. A disposition on the part of the surgical staff to keep in touch with the work of other surgical clinics should be freely encouraged by the hospital.

Segregation of Surgical Material.—Scientific progress can be promoted in large hospitals by permitting and encouraging individual surgeons to concentrate on certain types of cases. Such a segregation of surgical material may involve a departure from the fixed form of the hospital's organization, and this may result in personal opposition to the plan; but such opposition cannot be defended if all the members of the staff are granted equal opportunities.

Operating Rooms—The Number Required.—The hospital should place at the disposal of the surgical staff operating rooms which are sufficient in number and equipment, with an adequate personal organization. The number of operating rooms cannot be fixed by rule, but must be determined by the requirements in each case. The size of the operating plant of a hospital maintaining a given number of surgical beds should be calculated with relation to the proportion of ward and private beds, the number of emergency cases treated, the number and organization of the resident staff and of other available assistants. For a given number of ward cases, in the hands of a small staff, fewer operating rooms are required than for the same number of private patients treated by many different surgeons. The facilities should be such as to permit of the prompt treatment of all emergency cases. Thus, if it be estimated that an average of five or six surgical cases will be treated daily, and that these can be handled successively in a single operating room, a second room should nevertheless be available for emergency use.

The Surgical Ward and Its Accessories.—What has just been said indicates that, in the very planning of the hospital buildings, a surgical service may be made or marred. The plan of the surgical ward very materially affects not alone the convenience of the surgeon, but the comfort of the patient. A large ward designed for an acute surgical service should have recovery rooms, where post-operative cases may be cared for without causing distress to other patients; separation rooms for moribund or delirious patients, or for patients with foul wounds; rooms where convalescents may take their meals amid appropriate surroundings; rooms or wards for surgically complicated contagious cases; and balconies or roof gardens to which convalescents may resort when out of bed and where septic cases may receive fresh-air treatment.

The Reason Why the Poor and the Rich Should be Accommodated in the Same Hospital.—From the standpoint of personal efficiency, a hospital which conducts a charitable service pure and simple is at a disadvantage as compared with one which combines with its charity service accommodations for private patients. As a rule, hospitals require their surgeons to give gratuitous service to ward patients. Time spent in traveling from one institution to another is lost, and, if the surgeon is obliged each day to spend one or two hours in this way, the loss will fall, at least in part, on the hospital and its ward patients. Maximum personal efficiency presupposes minimum lost motion. This can be accomplished only if the hospital is so organized that all of the institutional and most of the professional activities of the visiting staff, whether in relation to private or charity patients, are carried on in a single establishment.

Organization of Out-patient Department.—The organization of the out-patient department is not a matter of indifference to the visiting surgeon. This department should be prepared to take over the care of all ambulatory convalescents. The retention of ambulatory cases in hospital wards is wasteful, and may result in retarded recovery. Each hospital must, therefore, have its out-patient department, and this department should be organized in relation to the in-patient service in a manner which will assure continuity of treatment where such continuity is desirable.

Social Service.—The advantages of a social service organization to the surgical division of a hospital have been so eloquently and so convincingly described by many writers that I dismiss the matter here with this brief reference.

Branch Hospital for Convalescents. — The branch hospital or hospital for surgical convalescents is another feature of hospital organization which has been fully discussed elsewhere. The day of the country branch hospital is rapidly approaching. It will open up a new era in hospital economy and efficiency.

End-Result Investigation.—The investigation of surgical end-results is a matter of serious importance. The employment of special workers to carry on end-result investigations in the field is now the practice of a number of hospitals. De-

spite the cost involved, such proposals should be sympathetically received by hospital administrators. The hospital is one of the greatest of existing social institutions, supported in this country at a total cost which staggers the imagination. *The value of its output must not be assumed, but must be proved.* The altruistic hospital surgeon will not permit his equanimity to be disturbed by the revelations of end-result investigations; if the disclosures are sometimes surprising, they are always instructive.

Autopsies and the Law.—The scientific value of autopsies and their corrective influence on surgical diagnosis and treatment are such that every hospital should appoint a member of its medical or administrative staff to assist in procuring them, and should also take an active part in the movement to obtain more liberal autopsy laws.

IV. REGULATING THE SURGEON

I have indicated many ways in which the hospital can and should assist the surgeon. Let me now turn to another aspect of the relations between the hospital and the surgeon. Superintendents assert, and surgeons do not deny, that the activities of surgeons need to be regulated; phases of regulation will therefore be considered.

Impartiality in the Admission of Patients.—The hospital owes certain duties to the sick poor. One of these duties is to conduct its admissions in a strictly impartial manner. Medical urgency and not personal influence should determine the order of the admission of patients.

While the hospital is endeavoring to fulfill its duty toward the public, the surgeon is endeavoring—in a similar fashion, but on a different plane—to take care of his own clientele. The surgeon's clientele is more limited than that of the hospital, and the surgeon can hardly be blamed if he does not take cognizance of needs which are beyond his ken. The surgeon very naturally looks to the hospital to care promptly for patients in whom he is personally interested, and in his eagerness to serve these patients he brings to bear on the admitting officer of the hospital the heavy pressure which his office and personality enable him to exert. To such pressure the hospital cannot conscientiously yield. The argument is sometimes made that the hospital should give preference to patients in whom its visiting surgeon is interested, by way of compensating the surgeon for his hospital work. This argument is fallacious. If the hospital owes anything to the surgeon, it has no right to discharge its debt at the expense of the friendless poor.

Regulation of the Discharge of Patients.—In the matter of the discharge of patients, as well as in connection with their admission, it is at times necessary for the hospital to take cognizance of and to regulate the activities of its staff. The surgeon who is zealous in the pursuit of science will naturally take greater interest in some patients than in others. A patient who, from the scientific point of view, is regarded as undesirable, may nevertheless have a strong claim on the care of the hospital. Influenced, perhaps unconsciously, by the trend of his scientific interest, the surgeon may propose to rid his service of a patient who should not be discharged.

When the hospital is working under such pressure that beds cannot be provided promptly for applicants in whom the visiting staff are interested, the attending surgeon, quite without culpable intent, may persuade himself that the period of hospital treatment has been unduly prolonged —that laparotomy cases, for example, can be safely ordered out of bed within an incredibly short time after operation. Whatever the merit of the surgeon's point of view, the hospital administrator is bound to consider independently the justice and the wisdom of discharging each patient. The hospital may and should take cognizance of social facts which the surgeon cannot be expected to know or to consider.

The foregoing remarks must not be interpreted as signifying a belief on the part of the writer that in these matters surgeons are guilty of moral or mental obliquity. They are, as a rule, normal human beings, whose minds functionate like the minds of other human beings. The surgeon simply has the defects of his very valuable qualities; his work is intensive, and his field of vision is apt to be narrowed accordingly.

At What Hour Should Routine Operations be Performed—and Why?—In most hospitals routine operative work is begun at a specified hour, which may be a morning or an afternoon hour. If it is the prevailing practice of the surgeons of the community to attend to office practice in the morning, the hospital surgeon will prefer to at t nd to his hospital operative work in the afternoon; yet the very surgeon who adopts this regime may express a preference for early morning as the time of choice for grave surgical operations in the case of private patients. There is an inconsistency here which demands attention. If the surgeon believes that there are physiological or clinical grounds for a certain choice of hour, by what right does he deliberately arrange to operate on hundreds of ward cases at a less advantageous time? From the standpoint of hospital administration, the proper way to deal with this

question is to ascertain the consensus of authoritative opinion, and to act accordingly.

Postponement of Operations.—Conflict between the hospital's interests and the private interests of the surgeon occasionally takes the form of the postponement of an operation on a ward patient after preparation—in other words, after a day of starvation and anxiety. There may be sound reasons for the postponement of an operation for which preparations have been made, but, when the reason given is no more serious than a social engagement, the hospital is bound to protest. It must not be inferred that incidents of this kind are frequent, or that, in the belief of the writer, surgeons generally put their own comfort and convenience before the interests of their patients; the contrary is the rule.

Fair Play to Interns and Nurses.—In the management of the hospital's surgical service, a minor matter, but one which demands attention, is the right of interns, operating room nurses, and other employees to regular meal hours. The physical and mental strain associated with surgical operations is not confined to the chief surgeon. His assistants, each striving to perform the duty assigned to him, are frequently subjected to very severe strains. Emergency work is forever turning up in operating rooms at uncomfortable hours, and assistants are compelled to adapt themselves to the situation. As a rule, they do so ungrudgingly; but their sacrifices must not be lightly passed by. Such sacrifices may be sanctioned when their purpose is to save life or to alleviate suffering, but not in order to enable the visiting surgeon to keep a dinner engagement.

The Control of Surgical Supplies.—It is worth while in any hospital to review periodically the distribution and consumption of surgical supplies. This must not be done in such a way as to hamper the surgeon in his work, but solely with a view to the prevention of unnecessary waste. If properly appealed to, surgeons are nearly always ready to cooperate with the hospital management. A standing committee of the surgical staff may be designated to exercise control over the use of supplies. A surgeon's principal interests, however, lie in other directions, and this must be taken into account in any system of control that may be adopted. Precisely because the surgeon's principal interests lie elsewhere, a permanent committee of control, after a period of activity, is likely to adopt a more or less platonic attitude toward this special economic function. In order to spur the surgical staff into renewed interest from time to time, the appointment of special subcommittees, instructed to deal with particular phases of waste, is a valuable expedient.

V. HOSPITAL MONOPOLY

Multiple Hospital Appointments.—That the acceptance by a single surgeon of a large number of hospital appointments usually results in a skimping of work in one institution or another is the testimony of experience. Protests against multiple hospital appointments may be and have been made on other grounds—for example, on the ground that the concentration of hospital privileges in the hands of a few men debars others, who may be equally deserving, of the opportunity for self-development, and thus unduly limits the public in the choice of its surgeons. To this latter argument considerable weight must be allowed, but not so much as to lead to the indiscriminate scattering of hospital appointments among unqualified persons, or to the substitution of the open hospital for the staff hospital in communities where, by means of a limitation of staff appointments, a distinctly higher grade of surgical work can be achieved.

"Open" vs. "Closed" Hospitals.—The writer does not believe that in a small community a hospital is justified in adopting a staff organization merely for the purpose of limiting hospital privileges to some of the physicians practicing in the locality, while others, few in number, and perhaps equally competent, are excluded. In determining whether a hospital should be "closed" or "open" one must consider the size and character of the community, the number and the characteristics of the men practicing in the community, and the effects of the adoption of either policy. In New York, Philadelphia, or Chicago a hospital which opens its doors to the general profession thereby places itself out of the running so far as any important contributions to science are concerned, although it may, by the adoption of the policy of the open door, confer a favor on many would-be and some real surgeons.

Age Limit.—In the larger cities a better and safer check on surgical monopoly than is offered by those who suggest the abolition of staff organizations is afforded by the adoption of an age limit. Hospital after hospital is recognizing this principle. Some ten years ago a hospital which was about to be reorganized sought, by means of a widely distributed questionnaire, to ascertain the extent to which hospitals in this country had undertaken to retire members of their visiting staffs on account of age. Although an age limit rule had long been in force in the public hospitals of France, in the leading voluntary hospitals of Great Britain, and in the medical service of the United States army and navy, it was ascertained that neither the municipal nor the voluntary hospitals of this country had yet given serious con-

sideration to this question. Since then much progress has been made. There are few important hospitals in this country today which have not either actually adopted an age limit rule or have not seriously considered doing so.

Excluding the Specialist.—Another form of monopoly to which attention may briefly be paid is the limitation of the surgical work of a "general" hospital to such work as the general surgeon is competent to perform. It is well known that the surgical specialists have made their way in this country in spite of the indifference or antagonism of general surgeons. The writer is not here attributing selfish motives to the general surgeon, but cannot avoid the conclusion that concentration on his own work has frequently prevented the general surgeon from viewing fairly and justly the rights of others or the needs of the community.

Let me illustrate: Five years ago an important municipal hospital was planning a large increase in the number of its beds. Although the hospital in question was known as a "general" hospital, it was notorious that in its medical organization the hospital had failed to take cognizance of the existence of such distinct and well-established specialties as otology and ophthalmology. The special training and equipment needed by otologists and ophthalmologists were conceded by every member of the staff. Under these circumstances, one might have expected, as part of a plan to more than double the capacity of the hospital, the recognition of these specialties. Nothing of the sort appeared in the program. When the omission was called to the attention of the staff, the reply was that there existed in the community private hospitals where these specialties were practiced. The irrelevancy and inconsistency of the reply became manifest when it was pointed out that there existed in the community also numerous private hospitals where general surgery was practiced. I venture to say that if committees of general surgeons were called together in twenty cities tomorrow and asked to outline a plan for the distribution of the surgical beds of a general hospital, less than 10 percent of the number would call for adequate recognition of the established surgical specialties.

From the point of view of the hospital, the needs of all classes of patients must be taken into consideration, and available beds should be distributed accordingly. The monopoly of the beds of a general hospital by general surgeons is no more justified than would be the appropriation of such beds by the specialists to the exclusion of the general surgeons.

"Special" Hospitals Not Desirable.—We must not overlook the fact that the exclusion of the surgical specialties from the general hospital, whether deliberate or not, brings about a reaction which is prejudicial to the interests of the community and disadvantageous to medicine. Fail to give to specialists the recognition which is their due, and in self-defense they will organize special hospitals for their own purposes. For this we cannot blame them, and yet the organization of such hospitals is not desirable. From the standpoint of the patient, a well-organized and well-equipped special department in a general hospital is greatly to be preferred to a hospital manned entirely by a group of specialists whose practice and field of observation are anatomically restricted, who lack the stimulating and steadying influence of daily contact with men engaged in the pursuit of other branches of medicine and surgery, and who do not daily collaborate with such men in the treatment of complicated cases. Cooperative medical practice does not and cannot thrive in the special hospital as it can in the general hospital.

The "Staff" Hospital Bound to Justify Itself.—I have already expressed my preference for the staff hospital in large cities. I am not blind, however, to the interests of the general profession, nor lacking in sympathy for the physician or surgeon who has no hospital connection. While in large cities it may be necessary and in the interest of surgical efficiency to organize hospital staffs along lines which seem to the excluded outsider to be monopolistic and unfair, it does not follow that consideration should not be shown to men outside of the ranks.

A staff hospital which does not maintain the highest surgical standards cannot justify itself; nor can a staff hospital be held blameless if it does not train interns in excess of the number required to keep the staff full; each year men should be sent out prepared to take up hospital duty in the new institutions which are springing up everywhere, or ready, if need be, to perform safe and sane surgery apart from hospitals, especially in rural communities which lack hospital facilities.

Participation in Medical Education.—The staff hospital should adapt itself to the requirements of the medical school, if there be one in the community, so that, besides training interns to become surgeons, it may afford to undergraduate students, whose fortune it may never be to become surgical interns, some slight insight into surgical technic, some appreciation of the gravity of surgical operations, and a wholesome distaste for undertaking important surgical work without adequate training.

Are Hospitals Opposed by the General Medical

Profession?—That a staff hospital, well organized and well equipped, interferes with the earnings of the general practitioner, cannot be denied. The assertion is frequently made that the hospital competes, even that it competes unfairly, with the general practitioner. If those who advance this argument mean that a well-organized and well-equipped hospital offers to the patient, and especially to the poor patient, an excellence of treatment and a measure of safety which he cannot have in his own home or so long as he remains in the care of his family physician, the charge is true. It is far from true, however, that hospitals and hospital surgeons compete with the general practitioner in the sense that there exists between the two groups a conflict of interest and an open hostility. The charge that such hostility exists is not in accordance with the facts. In my own experience the surgical wards of a large hospital have been occupied almost exclusively by patients referred to the hospital, or to members of the staff, by general practitioners. Any competition that exists, therefore, does not exist between the hospital and the general practitioner, or between the surgical staff and the general practitioner, but between the physician's honest appreciation of the needs of his patient and his—i. e., the physician's —economic interests. It is to the credit of physicians that in this competition their higher instincts are almost invariably victorious, and that hospital wards are filled with surgical cases through the honesty and self-denial of physicians who, rather than undertake work which they are not qualified to perform, deny themselves the privilege and profit of performing surgical operations at home, and place at the disposal of their patients all that a well-equipped hospital has to offer.

Duty of the Hospital to the General Practitioner.—What can the hospital do for the general practitioner in return for his cooperation and support? It can make him welcome in its wards; it can cooperate with him by diagnosing, without charge or for a moderate fee, complicated cases requiring the combined study of various members of the staff; it can keep him informed concerning the admission and discharge of his patients; it can, where required, offer the use of its laboratories, its x-ray department, its departments for special therapy; it can conduct post-graduate courses for his benefit; and last, but not least, it can perform for him and for his patients a simple act of justice by selecting its surgical staff with an eye single to efficiency and public service.

Speers Memorial Hospital, Dayton, Ky., has launched a "whirlwind" campaign for $50,000 with which to pay off the indebtedness of the institution, purchase new hospital equipment, and build a nurses' home.

RED CROSS NURSES FOR THE BORDER

Newly Organized Civilian Base Hospitals Drawn on for Service Along the Rio Grande

To reinforce the army nurse corps on the Mexican border, the War Department has obtained from the American Red Cross 125 graduate Red Cross enrolled nurses for assignment to camp and base hospitals distributed along the frontier from Nogales, Ariz., to Brownsville, Tex. Fifteen of these 125 are representatives of civil hospitals in which American Red Cross base hospital units have been organized by Colonel Jefferson R. Kean, Medical Corps U. S. A., the director general of military relief of the Red Cross. The nurses were selected by Miss Jane A. Delano, chairman of the national committee on Red Cross nursing service, whose department has over 7,000 enrolled graduate nurses. While Colonel Kean has organized twenty-five base hospitals, only eight of these will be represented in this detail of 125 nurses.

REPRESENTATIVES FROM RED CROSS BASE HOSPITAL UNITS

Harper Hospital, Detroit, Mich., to San Antonio, Tex.—Mary DuPaul and Donna Sutliff; Rochester General Hospital, Rochester, N. Y., to Nogales, Ariz.—Ruth M. Randall and Hazel Vegiard; Post-Graduate Hospital, New York city, to El Paso, Tex.—Isabelle MacMaster and Gertrude Williard; New York Hospital, New York city, to San Antonio, Tex.—Edith A. J. Howard and Marie K. Falconer; German Hospital, New York city, to Deming, N. M.—Katherine P. Duelle and Clara L. Horn; Boston City Hospital, Boston, Mass., to San Antonio, Tex.—Belinda Scanlan and Della M. Currier; Massachusetts General Hospital to Laredo, Tex.—Leonor A. Field; Cincinnati General Hospital to McAllen, Tex.—Cynthia Richardson and Elsie Magnus.

NURSES SELECTED FROM OTHER POINTS

Graduate enrolled Red Cross nurses selected from other points and the places assigned are as follows:

Denver, Col., to Nogales, Ariz.—Margaret B. Otis, Virginia Carnahan, Eva L. Fortman, Margaret F. Hamilton, Harriet H. Hart, Mae E. Walton, Mabel Light, Elizabeth M. Long, Helen M. Dixon, and Lenora Rall; Philadelphia, Pa., to Brownsville, Tex.—Edith L. Wood; Newark, N. J., to El Paso, Tex.—Ellen J. Thomas, Lilly Anderson, Clair Jones, Florence Hodgson, Lillian Fox, Grace Wilday, and Frances A. Long; Trenton N. J., to El Paso, Tex.—Linda K. Meirs; Cleveland, O., to Deming, N. M.—Ina May Clark and Mrs. Marie A. Shields; Canton, O., to Deming, N. M.—Mabel Firestone; Birmingham, Ala., to McAllen, Tex.—Eida E. Peterson, Mae Rowan, and Mattie Hinson; Augusta, Ga., to McAllen, Tex.—Emma L. Dozier and C. Elizabeth Thomas; Buffalo, N. Y., to Brownsville, Tex.—Dora Scheuer, Vera V. Dunkle, Mildred Engeland, Grace C. Hammond, and Jessie B. Mallory; Selma, Ala., to McAllen, Tex.—C. Marie Hansen; Dayton, O., to Deming, N. M.—Cora V. Moore; Commerce, Ga., to Laredo, Tex.—Katheryn Crowley; New Orleans, La., to Eagle Pass, Tex.—Lottie Glazener, Mary Ann Kief, Mary P. Little, and Maude F. Mims; Denver, Col., to Eagle Pass, Tex.—Anna May Barr; Camden, N. J., to El Paso, Tex.—Laura E. Wilde, Emily Jummel; Sioux City, Ia., to Llano Grande, Tex.—Nellie M. Porter, Katherine Aten, Edith G. Becker, Florence Griswold, Catherine Hoffman, Laura C. Leeder, Marie S. Ohge, Jenny C. Robertson, Cecilia Strief, and Abbie Taber; Crookston, Minn., to Llando Grande, Tex.—Hilda Twedten and Ida E. Twedten; Baltimore, Md., to Eagle Pass, Tex.—Florence P. Kennedy.

NEW ARMY TRAIN FOR THE MEXICAN BORDER

The Government's Task of Caring for Sick and Injured Soldiers Necessitated a Special Train Designed by Army Medical Experts and Pullman Car Designers —Commanded by Army Men

By MR. ALLAN G. GRINNELL, Washington, D. C.

THERE are now approximately 150,000 troops on the Mexican border, most of whom are untrained, unhardened militiamen. Thanks to the tireless efforts of the medical officers, the sick rate in the border camps has been extremely low. Since the Spanish War the medical department of the army has been preparing for just such an emergency, and it was ready for action the instant mobilization began.

On June 20 sufficient smallpox vaccine for the immunization of the entire state militia was sent to each mobilization camp, and enough typhoid vaccine for the first administration was also forwarded at the same time. As is well known, it requires at least fourteen days to complete the antityphoid vaccination, the second administration being accomplished seven days after the first, and the third seven days after the second. In all cases where the troops remained in the mobilization camps for a sufficient period, all three doses were given at the camps. The troops from a number of states were rushed to the border without waiting for complete immunization, however, and large quantities of the vaccine were sent from the army medical school (where it is manufactured) direct to the headquarters of the southern department, whence it was distributed to the camp surgeons on the border, with instructions to complete the immunization of each officer and enlisted man who had not been completely vaccinated at the mobilization camps. It will be seen, therefore, that every member of the militia who has been sworn into the federal service has been vaccinated against typhoid fever and smallpox, and that the tragedies of Chickamauga Park will not be reenacted.

In addition to these measures of prevention, the reserve medical equipment which the medical department has been accumulating since 1898 was at once available. Each mobilization camp not located at a post where the post hospital and medical supplies were available was immediately furnished (without requisition) with a camp hospital for the care and treatment of the militiamen who required such attention while in the mobilization camp.

According to army regulations, each militia organization is supposed to be fully equipped with the materiél and personnel before being "recognized" by the Federal Government. Judging from former experience, however, the surgeon general of the army anticipated that many militia organizations which had inadequate medical equipment would be admitted to the federal service, and such has been the case. These organizations have been promptly furnished with the necessary supplies.

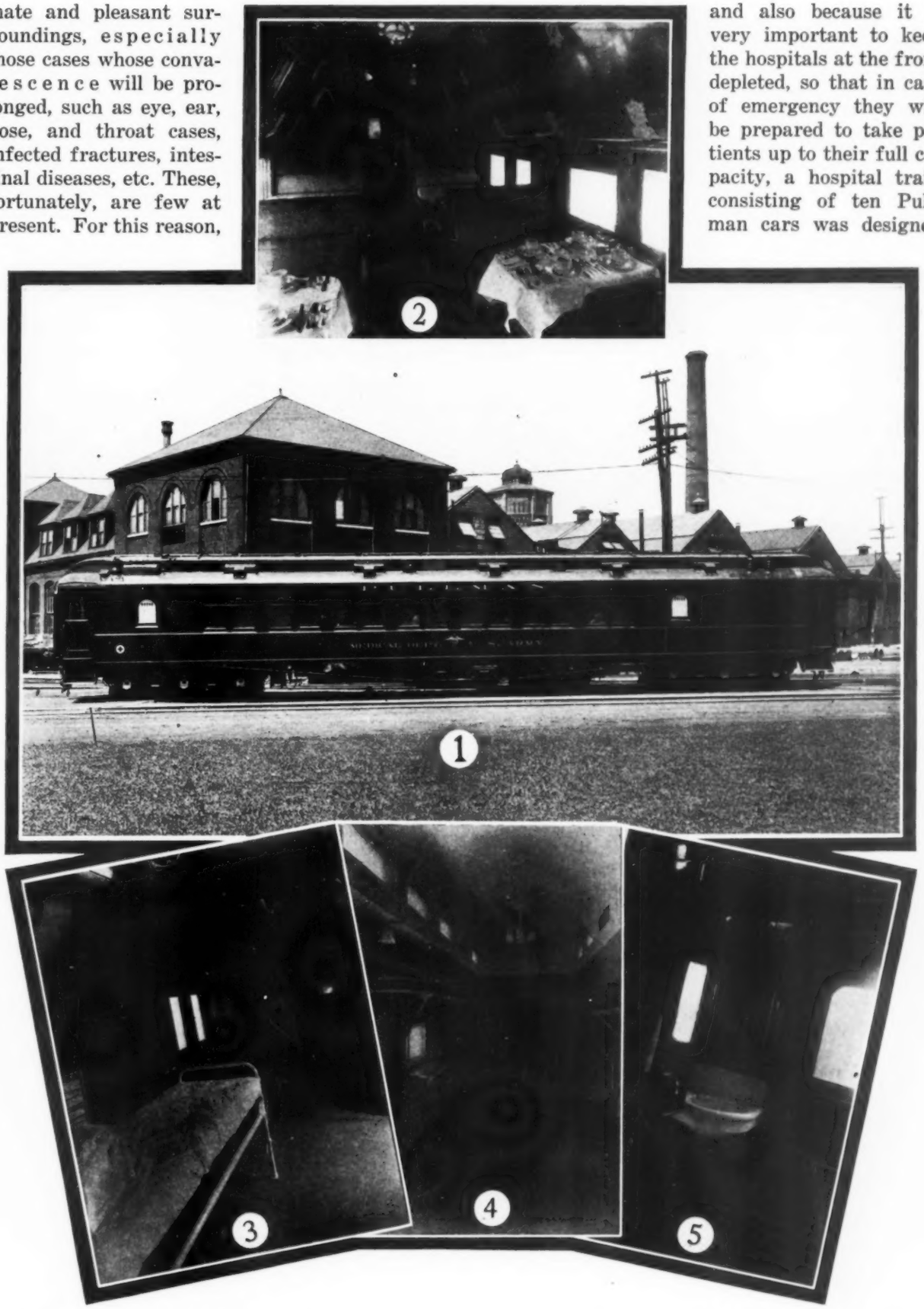
CONCENTRATION ON THE BORDER

In addition to the regimental hospitals, field hospitals, ambulance companies, etc., with the militia organizations on the border, camp hospitals of 150 beds each have been established at Mercedes, McAllen, Llano Grande, Laredo, Eagle Pass, Del Rio, Marfa, Douglas, and Deming. Base hospitals having a capacity of from 350 to 500 patients have also been established at Brownsville and Nogales. Larger base hospitals (about 750 beds each) are located at San Antonio and El Paso.

While there are no "hardships" as known to military men in the routine life of the border camps at present, and the sick rate is lower than it would be among the same class of population at home, due to the most rigid camp sanitation and the constant teaching by precept and practice of military and personal hygiene, nevertheless it is inevitable that a certain amount of sickness and disability should occur among 150,000 troops, the majority of whom have been suddenly removed from the comforts and luxuries of civil life and stripped to the bare necessities of fighting men.

Without taking into consideration epidemics of typhoid fever and other infectious diseases, none of which are expected to flourish for the reasons given above, experience has shown that the medical department should be prepared to care for at least 3 percent of the command during mobilization and concentration and 10 percent during active campaign. For this reason the elaborate system of camp and base hospitals above referred to has been worked out. The trivial cases, or those requiring only short periods of convalescence, are cared for in the camp hospitals, the more serious cases being transferred to the base hospitals. A certain percentage of the latter will need to be transferred to a more invigorating cli-

mate and pleasant surroundings, especially those cases whose convalescence will be prolonged, such as eye, ear, nose, and throat cases, infected fractures, intestinal diseases, etc. These, fortunately, are few at present. For this reason, and also because it is very important to keep the hospitals at the front depleted, so that in case of emergency they will be prepared to take patients up to their full capacity, a hospital train consisting of ten Pullman cars was designed



United States army hospital train. Fig. 1—Car No. 1, showing on the side of the car the caduceus of the medical department and the emblem of the Red Cross. Fig. 2—Dining arrangements. Fig. 3—Interior view of the side door opening into the medical ward on car No. 3. Fig. 4—Store room on car No. 8. Fig. 5—Lavatory on car No. 3.

and constructed at the Pullman shops, Chicago, and left for the border on August 14. In case of need, additional trains would be placed in operation.

Patients will be carried short distances along the border by motor and animal-drawn ambulances. All long-distance trips (and it must be remembered that the border stretches for a distance comparable to the distance from New York to Denver) will be made by hospital train. This train will also take the sick from the border hospitals back into the interior of the country to the big army general hospitals located at Washington, D. C., Hot Springs, Ark., and San Francisco, Cal. In case these become crowded, plans are also under way to establish general hospitals at Fort McPherson, Ga., Fort Oglethorpe, Ga., Fort Thomas, Ky., and Fort Sheridan, Ill., where post hospitals are now located.

The hospital train is commanded by Captain Howard Bailey, medical corps United States army, and has a personnel of three medical officers, twenty-five hospital corps men, and seven female nurses. It was designed jointly by Major Percy L. Jones, medical corps United States army, and Mr. Phlager, supervising constructor of the Pullman shops, and much credit is due to the Pullman company. As soon as this company was informed by the surgeon general's office that such a train was contemplated, it sent two of its officials to Washington, without expense to the government, who gave much valuable advice and suggestion to the medical officer who had the matter in charge, and the Pullman company has in every way cooperated heartily with the government in this enterprise.

The cars which make up the hospital train are regular Pullman cars, with the alterations and additional equipment indicated below. When the exigencies of the service demand, additional cars may be added to the train, or more trains made up.

CAR NO. 1 (KITCHEN CAR).—This car is placed No. 1 in order to avoid the necessity of patients and personnel passing through it. It was originally designed for use in transporting troops, and meets the needs admirably. The kitchen is complete, with refrigerator, range, steam tables, movable serving tables, coffee urns, lockers, sinks, and lights, and has a 600-gallon water capacity. The kitchen portion of the car is about one-third of its entire length. The remainder, with partition and swinging door, is equipped with fourteen sleeping sections, having all conveniences, to be used by the personnel and civilian helpers.

CARS NOS. 2 AND 9 (FOR AMBULANT CASES, INCLUDING OFFICERS' WARD).—Car No. 2 has all the necessary conveniences for ambulant cases, and is practically unchanged, except for the addition of a cabinet for medicines, desk, and chair for attendant, additional fans, and thorough screening throughout. It will accommodate 22 patients, allowing a whole berth for each. Car No. 9 is identical with No. 2, except that a portion of this car has been sectioned off for the use of sick officers who are able to walk. Those officers who are strictly bed cases will be placed in a patient car and curtained off.

CARS NOS. 3, 4, 6, AND 7 (FOR LITTER CASES).—These cars are Pullman type 1383D. Two side doors about 4 feet wide have been cut opposite each other near one end of the car to facilitate the admission and removal of litter cases. The end entrances have also been widened so as to easily admit the standard army stretcher. The upper berths have been left intact with entire Pullman equipment. The lower berths have been taken out, and fourteen comfortable hospital beds 6 feet 4 inches long by 30 inches wide, fitted with standard National springs and felt mattresses, have been substituted. The legs of these beds have been provided with flanges, so that each may be quickly and permanently attached to the floor. Each of these cars provides for fourteen bed cases and fourteen ambulant cases (upper berths). The following additional installation has been made in each car: call bells and individual lights at each bed; additional fans, lockers for linen, cabinet for medicines, and an additional ice water tank, giving a total capacity of 150 gallons. A desk and chair have been provided for the attendant, ample shower baths have been installed, and all windows and doors have been thoroughly screened.

CAR NO. 5 (OPERATING AND RECOVERY ROOM).—A 25-foot section (about one-third the length of this car) has been partitioned off for use as an operating room, and is equipped with all of the hospital appliances of a modern army hospital in the field (minus tentage and other unnecessary camp equipment). Four additional windows have been cut for ventilation and light, and also two 4-foot side doors. A composition floor has been laid, and the interior of the operating section has been painted a very light gray. The remaining two-thirds of this car has been stripped completely of lower berths, providing space for ten hospital beds. This section is for the most serious cases and to serve as a recovery room.

CAR NO. 10 (SLEEPING CAR FOR DOCTORS,

NURSES AND ATTENDANTS). This car accommodates one commanding officer, two assistant surgeons, and twelve nurses, allowing an entire section to each and one large drawing room for all.

CAR NO. 8.—This car is built in sections similar to car No. 5, except that the compartment used as an operating room in No. 5 is used as a baggage room. The other section is similar to the corresponding section in car No. 5, and used for the same purpose.

In all cases where Pullman equipment has been removed, the regulation army medical equipment has been substituted. This new train is entirely different from the hospital trains of the Spanish War, which were standard Pullman cars, practically without modification. To load these cars it was necessary to detach each car from the train and pass the litter patients in through the open end, the side doors being too narrow to admit the standard army litters.

United States army hospital train. Fig. 6—Car No. 3, showing the side door opening into the medical ward. Fig. 7—Medical ward, showing closed door leading into first-aid dressing and operating room on car No. 8. Fig. 8—Medical ward, showing entrance into first-aid dressing and operating room on car No. 8. Fig. 9—Interior view of first-aid dressing and operating room on car No. 8.

Queensborough Hospital. Front view.

QUEENSBOROUGH HOSPITAL PLANNED LARGE, BUILT SMALL

One of the Newer Institutions of the New York City Department of Health May Grow Indefinitely and Retain Harmonious Form—Some of the Details of Construction and Aims of the Architect and Consultant

THE Queensborough Hospital is one of the newer hospital groups of the Department of Health of the city of New York. It is at present intended only for contagious diseases, but may be developed later into a hospital of a more general character. The plot, comprising about eleven acres, is located on a rise of ground one mile north of Jamaica, facing Flushing avenue on the west and the Jamaica and Flushing trolley line on the east, in the borough of Queens.

While the building just completed, an illustration of which is shown, is the only one thus far erected, yet the entire hospital scheme has been carefully outlined. The hospital group, as planned, comprises eighteen buildings, with roadways, service lines, etc., so located that, whatever the rate of development may be, it will tend, both practically and architecturally, toward a harmonious whole. With the above development in mind, the present building was planned and studied in connection with the next building of the plant to be erected later—namely, the nurses' home—which will temporarily house, in addition to the nurses, the administration, the medical staff, and some of the help.

The present building has ample provision for observation and isolation. The first story contains in the south wing the admission room, with a toilet having a portable bath, which may be taken to any of the observation rooms as desired; also ten observation rooms, where patients can be isolated pending diagnosis before being regularly admitted to the wards. These rooms can be served from a common corridor, or can be cut off and served entirely from the glass-covered porch.

The north wing contains three small wards, each with adequate independent bath and toilet facilities. The northernmost one will be used temporarily as the resident physician's apartment. The central portion of the building contains the nurses' rooms, diet kitchens, office, attending physician's room, and dining room. All first-story rooms open on to covered porches.

The second story contains four wards divided into cubicles, so that there will not be more than two beds to each cubicle, insuring almost perfect isolation. The cubicles can be screened so as to serve either as quiet rooms or as examination rooms if desired. The partitions are glass above the bed line, so that the nurse may have the entire ward in full view from any position. In connection with these wards there are shower baths, baby shelf baths, and every convenience of modern plumbing necessary for hospital service. At the ends of these wards are two screened open-air porches, and in the center, in this story, are the nurses' and treatment rooms and a large convalescents' room or play room. These wards are arranged with large casement windows, to permit open-air treatment when desired.

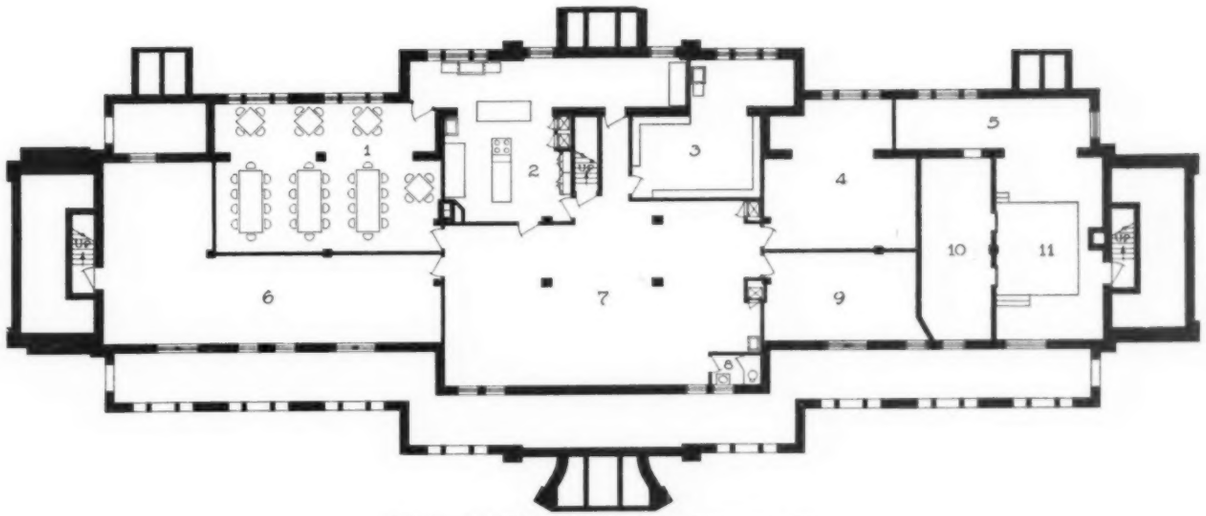


Fig. 2. Queensborough Hospital. Basement plan.

1. Help's dining room.
2. Kitchen.
3. Drug room.
4, 6, 7, 9. Storage rooms.
5. Shop.
8. Toilet.
10. Coal room.
11. Boiler room.

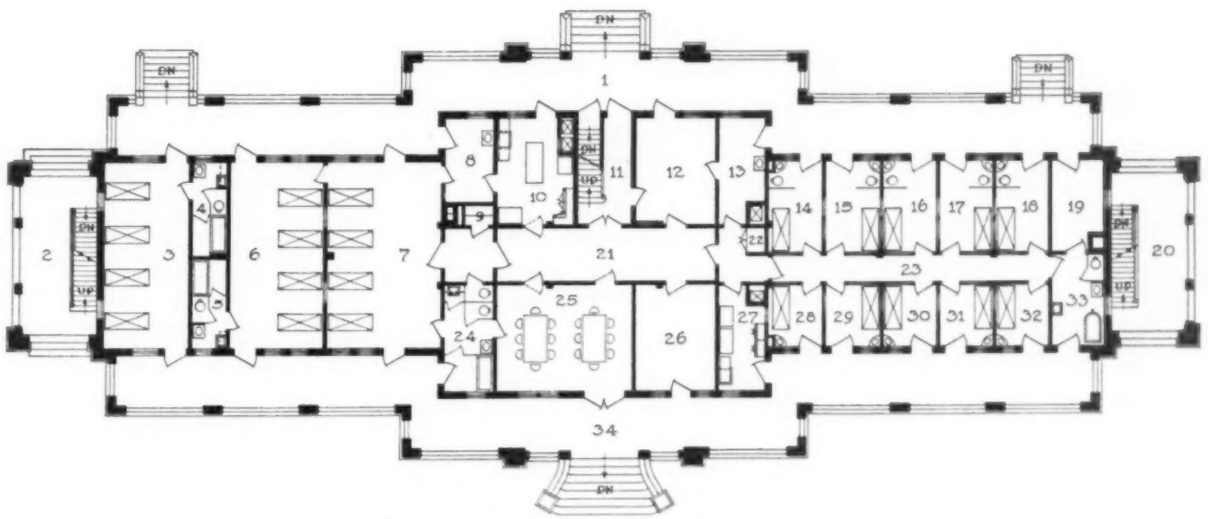


Fig. 3. Queensborough Hospital. First floor plan.

1, 2, 20, 34. Porches.
3, 6, 7. Wards.
4, 5, 24. Toilets.
8, 13. Nurses' rooms.
9, 22. Linen closets.
10, 27. Diet kitchens.
11. Stair hall.
12. General office.
14 to 18. Observation rooms.
28 to 32. Observation rooms.
19, 33. Admission rooms.
21, 23. Corridors.
25. Dining room.
26. Physicians' office.

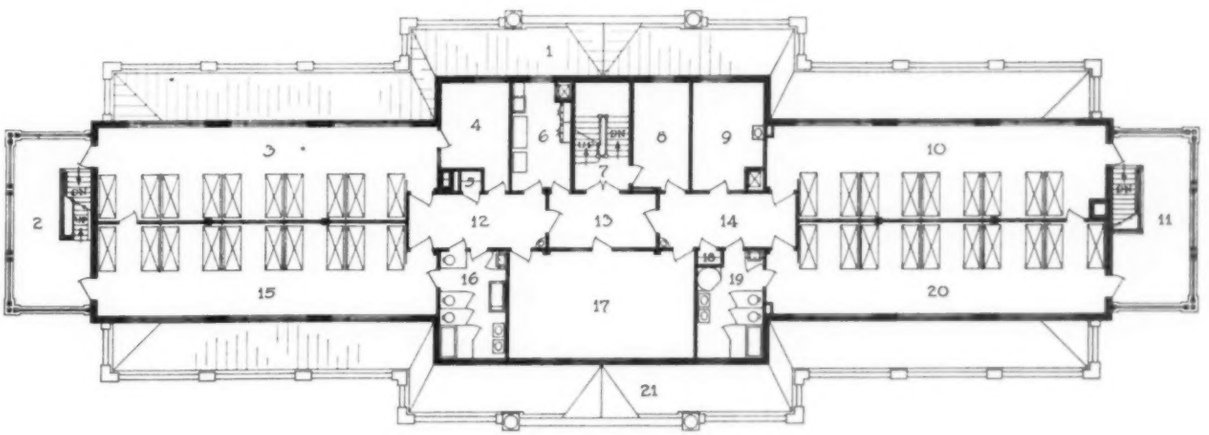


Fig. 4. Queensborough Hospital. Second floor plan.

1, 21. Skylight porch roofs.
2, 11. Porches.
3, 10, 15, 20. Wards.
4, 8. Quiet rooms.
5, 18. Linen closets.
6. Diet kitchen.
7. Stair hall.
9. Nurses' room.
12, 14. Corridors.
13. Hall.
16, 19. Toilets.
17. Convalescents' room.

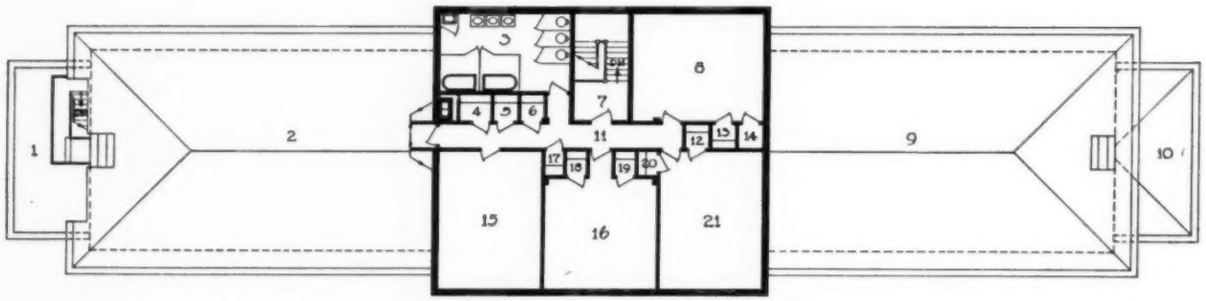


Fig. 5. Queensborough Hospital. Third floor plan.

1, 10. Porch roofs.
2, 9. Wing roofs.
3. Toilet.
4, 5, 6. Closets.
12, 13, 14. Closets.
18, 19, 20. Closets.
7. Stair hall.
8, 15, 16, 21. Dormitories.
11. Corridor.
17. Linen closet.

The third story contains the dormitories and rooms for the nurses and help, with all necessary conveniences. The basement contains the kitchen, dining room, store rooms, drug room, and boilers. The heating system is laid out for later connection to a central power house. The laundry work will be done in the large laundry of the Kingston avenue plant of the Department of Health until the Queensborough plant is further developed.

The building has been finished in the most sanitary manner with smooth walls, flush trim, rounded corners, tile floor, sanitary base, and marble linings about all plumbing fixtures, and is designed to care for a large number of patients at small expense. The construction is reinforced concrete skeleton, with hollow tile filling, stucco finish, and red Spanish tile roof.

It was the purpose of the architect, William E. Austin, of New York city, to give a pleasing building through good proportions and without expensive ornament. How well this purpose has been accomplished may be judged from the illustration and from the fact that the building, complete with the fittings above described, was erected within the city of New York at a cost of only 33¾ cents per cubic foot.

CANNED FRUITS—THEIR QUALITY, PURITY, AND PRICE[1]

General Character of Fruits Used—Quality of Syrups and Weights as Compared With Label Claims—Apples—Apricots—Cherries—Peaches—Pears—Pineapples—Plums

By JOHN PHILLIPS STREET, Chemist Connecticut Agricultural Experiment Station, New Haven, Conn.

CANNED fruits do not possess the commercial importance of such canned vegetables as peas, corn, and tomatoes; nevertheless the industry is a most important one, and the output of the product is constantly increasing. As was pointed out in the September number of The Modern Hospital, most of us prefer the fresh product to even the finest canned fruit or vegetable, yet it must be recognized that at certain seasons of the year fresh fruits are denied to the ordinary purchaser of limited income. Fortunately, in times of abundance the canner is able to pack for our use fruits of excellent quality, and thus aid most materially, not only in the conservation of an important source of human food, but also in supplying to the consumer a high-grade food product at a reasonable cost.

At one time it was considered that fruits of the highest quality should be packed only in glass, and fruits in tin were considered somewhat taboo. The development of the canning industry, however, has more and more emphasized the value of the tin can as a container, and today we find fruits of the highest quality packed in that manner. It is true that some of the most fancy brands are still packed in glass, but in many instances this "fanciness" consists more in appearance than in any other quality, and the consumer pays a greatly increased price for a product that looks well, but probably is no more nutritious than, and often is inferior in taste and flavor to, its less aristocratic brother packed in tin.

In judging the quality of canned fruits, the following points should be considered: the nature of the fruit employed, the heaviness (density) of the syrup, the presence of foreign substances (such as glucose, saccharin, artificial color, and chemical preservatives), and the truthfulness of the label as to variety of fruit, and the name and location of the packer. Some of these points are possibly of more importance to the inspection official than to the ordinary consumer, but they all have a bearing on the quality of the product and its integrity. At the present time saccharin, artificial color, and

[1]This is one in a series of papers by Mr. Street on Foods. In September, Canned Vegetables; next paper, Macaroni, Spaghetti, Vermicelli, and Noodles.

chemical preservatives are seldom used in the ordinary classes of canned fruits. In such a product as maraschino cherries, however, artificial color and preservatives are usually present, and even the maraschino flavor itself is often spurious. Strawberries and raspberries, which lose much of their natural color on cooking, are also sometimes artificially colored. Generally speaking, however, canned fruits are even more free from adulteration in the usual understanding of that term than are canned vegetables, which is high praise indeed.

The greatest variations found in brands of the same kind of canned fruit lie in the quality of the fruit used and the density of the syrup in which the fruit is packed. Generally speaking, the heaviest syrup is used with the best fruit, but good fruit is found packed in syrups of all concentrations, according to the abundance of the fruit and to special commercial demands.

The quality of the fruit used shows great variations. The fruit may be large, firm, free from spots and blemishes of all kinds, or it may consist of small, immature, irregularly shaped pieces, with occasional spots of decay. In the case of peaches, especially those intended for use in pies, we often find the fruit unpeeled, and in some of the cheaper grades of sliced pineapple the eyes are not removed. In judging the quality of canned fruit, just as in the case of the fresh article, too much dependence must not be placed on appearance alone, for, as already stated, often the fruit of finest flavor is not that which appeals most strongly to the eye.

During the past year the writer has made quite an extensive examination of canned apples, apricots, cherries, peaches, pears, pineapple, and plums. The investigation was not concerned so much with the chemical composition of the fruits, which varies greatly according to variety, season, maturity, and other conditions, but rather with the relation of fruit to liquor, the density of the syrup used, the quality of the fruit packed, and the integrity of the net weights claimed on the can labels. In all 303 samples, representing 101 brands, were examined, all of which were packed in tin, except one brand of "fancy" plums packed in glass. The details of this examination cannot be given in this place, but a summary of the writer's findings will show the quality of the canned fruit offered to the American public, and will point out certain matters of interest in connection with the purchase of this class of food.

APPLES

The samples were all packed in No. 3 cans, one brand claiming 29 ounces net weight and all the others 30 ounces. In only one brand was a weight shortage shown, the net weight in all the cans ranging from 29.5 to 33.7 ounces. The solids, separated by draining the liquor from the fruit, made up from 50 to 71 percent of the total weight. Apparently sugar is not added to canned apples to any great extent, as the liquor contained only from 6.4 to 8.1 percent. The size and quality of the fruit packed showed a wide range; in some brands fine, large fruit, in others small fruit; practically culls, was used. The number of pieces of fruit per can ranged from 11 to 43, two brands containing many small pieces of various shapes and sizes. The cost ranged from 10 to 15 cents per can.

APRICOTS

All but one brand were packed in No. 2½ cans, all but three satisfying their net weight claims of from 30 to 32 ounces; the net weight varied from 29.9 to 33.1 ounces. The drained fruit made up from 52 to 63 percent of the total weight, and the sugar in the liquor ranged from 23.2 to 27.1 percent. The size and quality of the fruit was much more uniform than in the case of apples, although in two brands the skins had not been removed. The number of pieces of fruit ranged from 19 to 23, and the cost from 25 to 28 cents per can.

CHERRIES

Three samples were packed in No. 1 cans, 33 in No. 2, 21 in No. 2½, and 3 in odd-sized cans. The brand in No. 1 cans, although claiming 19 ounces net weight, contained only 11.7, 11.9, and 11.7 ounces, respectively, probably an unintentional shortage arising from using the wrong labels on this particular lot.

The samples in No. 2 cans claimed from 18 to 21 ounces net weight, and showed from 20.7 to 23 ounces, only one sample showing even a slight shortage. The weight of drained fruit ranged from 45 to 72 percent, in six samples amounting to less than 50 percent, although in all of the latter the quality of the fruit was good. The sugar in the liquor ranged from 13.4 to 44.4 percent, and the cost from 15 to 25 cents per can.

The samples in No. 2½ cans contained from 29.7 to 32.9 ounces, 30 ounces being uniformly claimed. The drained solids ranged from 52 to 69 percent, the sugar in the liquor from 7.2 to 28.4 percent, and the cost from 15 to 30 cents per can.

The cherries were not counted, but they ranged from fine large cherries to small, partially rotten fruit. One can was blown and two showed some gas on opening. Three cans of one brand contained several rotten fruits.

PEACHES

No pie peaches were included in the examination. Six samples of sliced peaches in No. 2 cans showed an average net weight of 22.7 ounces. In one brand the fruit made up 73 percent of the contents, while in the other only 58 percent was fruit; likewise the former contained 31.7 percent of sugar and the latter 17.5 percent. The price was somewhat in harmony with the quality—namely, 22 and 15 cents per can, respectively.

The samples of halved fruit were generally packed in No. 2½ cans, claiming from 28 to 31 ounces net weight, and with actual weights from 29.0 to 32.5 ounces. The weight of drained fruit ranged from 54 to 75 percent and the sugar in the liquor from 8.1 to 30.8 percent. The number of pieces of fruit ranged from 6 to 25. The quality of the fruit likewise was quite variable, in some cases the fruit being overripe, in others of poor appearance, but of excellent flavor, while in still others fine appearing fruit was deficient in flavor. The cost ranged from 15 to 25 cents per can.

PEARS

This fruit usually was found packed in No. 2 cans, claiming from 18 to 21 ounces net weight and supplying from 19.8 to 21.9 ounces. The drained solids ranged from 49 to 73 percent, the sugar in the liquor from 10.9 to 21.6 percent, the number of pieces of fruit from 7 to 23, and the cost per can from 8 to 15 cents. The quality of the pears was not always good. In one brand the fruit was hard and immature; in others the pears were mushy, several containing pieces with rotten spots; one can consisted chiefly of small pieces and trimmings, with occasional cores and seeds; one can was blown, two cans had a distinct fishy odor, two cans contained considerable dirt, and one contained numerous raspberry seeds. From a quality standpoint the pears were the least satisfactory of all the fruits examined.

PINEAPPLE

Pineapple was found in three forms—sliced, grated or crushed, and in small cubes. The sliced pineapple was packed in No. 2 and No. 2½ cans. In the No. 2 cans the claimed weight ranged from 18 to 20 ounces, and that found from 20.6 to 22.3 ounces. The drained fruit ranged from 48 to 73 percent, three samples containing less than 55 percent, while all of the others contained over 60 and most of them over 65 percent. The number of slices ranged from 7 to 12, depending chiefly on the size of the fruits. The sugar in the liquor ranged from 19.2 to 30.8 percent and the cost from 15 to 20 cents per can.

In the No. 2½ cans the claimed weight ranged from 28 to 30 ounces, and that found from 29.6 to 31.9 ounces; the drained fruit from 61 to 65 percent, the number of slices from 8 to 10, the sugar in the liquor from 19.6 to 25.2, and the cost per can from 15 to 25 cents.

The grated or crushed pineapple was packed in No. 2 and No. 3 cans. In the former the net weight ranged from 20.5 to 21.5 ounces, and in the latter from 32.4 to 33.7 ounces. The drained fruit in No. 2 cans ranged from 38 to 52, and in No. 3 cans from 59 to 66 percent. The brand packed in No. 3 cans showed only from 6.0 to 6.9 percent of sugar in the liquor, compared with an average of 23.3 percent in the others, and the eyes had not been removed. The latter fact was plainly stated on the label, and, coupled with the low price of 10 cents per can, indicated that the preparation was not offered as a high-grade product.

PLUMS

Twenty-one samples were packed in No. 2 cans, 12 in No. 2½ cans, and 3 in glass jars equivalent to No. 2 cans. The samples in glass averaged 23 ounces net weight, the drained fruit from 46 to 55 percent, the sugar in the liquor, which was very high, from 23.4 to 33.3 percent, and the number of plums from 19 to 25.

The samples in No. 2 cans claimed net weights from 19 to 22 ounces, and supplied 21.2 to 21.9 ounces. The drained fruit ranged from 41 to 62 percent, four samples containing less than 50 percent. One brand averaged only 42 percent compared with 55 percent in the other brands. The sugar in the liquor ranged from 15 to 20 percent, the number of plums from 16 to 26, and the cost from 10 to 15 cents per can.

In No. 2½ cans the claimed weight ranged from 29 to 30 ounces, and that found from 30.7 to 33.0 ounces; the drained fruit from 43 to 58 percent, the sugar in the liquor from 14.8 to 26.6 percent, the number of plums from 8 to 43, and the cost from 15 to 22 cents. In the three samples of one brand the number of plums found were 20, 25, and 43, the last being very small fruit. Aside from the great variations in size, in some of the brands the fruit was very soft and mushy, and by no means of attractive appearance.

SUMMARY

The above statistical recital, of course, has been prosy enough, but the facts presented should be of value to institutions and individuals who are obliged to purchase canned fruits in quantity. The facts herewith given are in no sense opposed to the high reputation these products enjoy. On the contrary, they show that our canned fruits are generally of high quality and are sold honestly.

CANNED FRUITS

Fruit	Can size	Net weight Claimed Max. oz.	Net weight Claimed Min. oz.	Net weight Found Max. oz.	Net weight Found Min. oz.	Weight of drained fruit Max. oz.	Weight of drained fruit Min. oz.	Percent of drained fruit Max.	Percent of drained fruit Min.	Percent of sugar in liquor Max.	Percent of sugar in liquor Min.	Number of pieces of fruit Max.	Number of pieces of fruit Min.	Average weight of pieces of fruit Max. oz.	Average weight of pieces of fruit Min. oz.	Cost per can Max. cents	Cost per can Min. cents
Apples	3	30	29	33.7	29.5	22.8	17.0	71	50	8.1	6.4	43	11	1.62	0.51	15	10
Apricots	2½	32	30	33.1	29.9	20.0	16.6	63	52	27.1	23.2	23	19	0.53	0.46	28	25
Cherries	2	21	18	23.0	20.7	15.4	9.9	72	45	44.4	13.4	..	..	....	....	25	15
Cherries	2½	30	30	32.9	29.7	21.8	16.6	69	52	28.4	7.2	..	..	....	....	30	15
Peaches	2½	31	28	32.5	29.0	22.4	15.8	75	54	30.8	8.1	25	6	3.07	0.82	25	15
Pears	2	21	18	21.9	19.8	14.9	9.9	73	49	21.6	10.9	23	7	1.71	0.54	15	8
Pears	3	35	32	37.5	33.9	25.6	17.9	69	50	19.4	9.9	28	10	1.79	0.67	15	10
Pineapple, sliced	2	20	18	22.3	20.6	15.2	10.3	73	48	30.9	19.2	12	7	1.86	0.86	20	15
Pineapple, grated	2	20	19	21.5	20.5	11.0	7.9	52	38	25.4	20.7	..	..	....	....	23	20
Plums	2	22	19	21.9	21.2	13.3	8.8	62	41	20.0	15.0	26	16	0.70	0.42	15	10
Plums	2½	30	29	33.0	30.7	18.0	13.3	58	43	26.6	14.8	43	8	1.98	0.39	22	15

Nevertheless the summary given in the appended table shows very clearly that a wide choice exists as regards quality, and that mere cheapness is often a delusion and a snare. The net weights claimed are almost always conservative, and the purchaser, as a rule, obtains more of the product than the packer guarantees. The relation of fruit to liquor, however, will well repay close study. With such variations in percentage of fruit as 45 and 72 for cherries, 54 and 75 for peaches, 49 and 73 for pears, and 48 and 73 for sliced pineapple, it is evident that at times the consumer is called on to purchase excessive amounts of liquor under the supposition that he is receiving the normal amount of fruit. In many instances this liquor contains considerable sugar, but at times it more nearly resembles water than a sugary solution. The density of a syrup doubtless has an influence on the cost of the canned product, and the table shows such wide variations in sugar content as from 7 to 44 for cherries, 8 to 31 for peaches, 10 to 22 for pears, 19 to 31 for pineapple, and 15 to 27 for plums.

Quality likewise is reflected to some extent in the size of the fruit packed. When cans of the same size contain from 11 to 43 pieces of apples, or from 6 to 25 half peaches, or from 7 to 23 pieces of pears, or from 8 to 43 plums, it is apparent that fine, large fruit is not always used, although of course in some cases the smaller fruits may not be deficient in flavor.

Generally speaking, the fruits examined were of a high degree of excellence. While in some cases, notably with pears, inferior fruit was packed, and rather careless packing methods were employed, resulting in an unattractive, and in a few cases a dirty, product, the packers of American fruits are worthy of high commendation for the general excellence of their products. When they realize more fully that the consumer should not be asked to pay a fruit price for water or a dilute sugar syrup, the most carping critic will have little ground of complaint against this class of products, of which the manufacturers may justly be proud.

In an unofficial paper of this character it is obviously improper to go into details concerning specific brands. To the seeker of such information the writer will be pleased to send a copy of his 1915 report on request, in which twenty-seven pages are devoted to this important subject.

STUDY OF CANCER TAKING FORM

National Society Issues Bulletin Telling of Its Activities and the Scope of Its Work

The American Society for the Control of Cancer has prepared tentatively a series of hospital records which, it announces, are now in use in several selected hospitals, with a view to the formulation of a final record series that will furnish data for a further and much needed study of cancer and its occurrence in the individual, the family, and the community.

The society has just issued a new bulletin on the scope of its work. It is stated that the society is now working in close coordination with the following national organizations, with the boards of health, with organizations of social workers, women's clubs, insurance companies, industrial and welfare bureaus, and the public press:

American Dermatological Association, American Surgical Association, American Laryngological Association, American Otological Society, American Association of Genitourinary Surgeons, American Gynecological Society, American Association of Pathologists and Bacteriologists, American Orthopedic Association, American Ophthalmological Society, and the American Neurological Association.

The society announces that it has no purpose to engage in experimental research, does not intend to aid in the support of hospitals or clinics, and will not attempt the treatment of individual cases of cancer. It will issue circulars and bulletins on the subject of cancer, inaugurate and inspire public meetings and lectures, do statistical research, collect clinical histories, and in every way possible lead a propaganda for a better approach to the study of all phases of the subject.

The society's offices are at 25 West Forty-fifth street, New York, and Mr. Curtis E. Lakeman is the executive secretary.

The new Nathan and Miriam Barnert Hospital at Paterson, N. J., reported to have cost in the neighborhood of $150,000, was opened October 24. Mr. David Schwab, formerly superintendent of the Hebrew Hospital, of Baltimore, has supervised the erection and equipment of the building, and will manage the institution.

THE SMALL COMMUNITY HOSPITAL—THE INTERIOR ARRANGEMENT[1]

Most Community Institutions Must Be Planned for Future Expansion—Some Principles of Interior Arrangement Illustrated—Cost Discussed

By JOHN ALLAN HORNSBY, M. D., Chicago

PAPER V

ANNOUNCEMENT was made last month that the next paper in this series would concern the organization of the small hospital. During the month, however, persistent appeal has been made for another article on the architecture of the small hospital, this time including rather the interior arrangement, the last article having been devoted to materials for construction. And it seems that this should be so, because very much space is being wasted in most of the new small hospitals that are going up, and many necessary units or working places are being omitted; so that this month we shall discuss the interior arrangements of the small community hospital, and, in order that the discussion may take on a helpful and, as it were, clinical aspect, we are using as the basis for discussion an ideal plan of a hospital to provide for twenty or perhaps twenty-four patients, and to be the first unit of a building that can be added to from time to time without disturbing its homogeneity or architectural form. We have purposely omitted scales on the drawings for this hospital because we do not agree with Sir Henry Burdett, of London, that hospital plans are useless unless drawn to scale.

There are some pretty definite figures for hospital construction in this country; for instance, our beds are approximately 3 feet wide and 6 feet 6 inches long, and there must be working space between them of at least 3 feet. The head of the bed should stand away from the wall at least 18 inches, and the beds at the ends should leave working space next to the walls. It makes not quite so much difference as to the width of the aisle between the feet of the bed, so that carts and wheel chairs and perhaps two persons abreast can traverse them.

Our serving rooms or diet kitchens, where they are intended to serve one floor or one unit only, should be large enough to contain a small ice box or refrigerator, a cabinet on the wall for dishes, a steam table—say, 2 by 4 feet—a small serving table—say 3 by 4 feet—and a sink, with drain board, and space for a hot plate, either gas or electricity.

Our utility rooms must contain a slop sink, a utensil sterilizer, a wall cabinet for bed pans, urinals and rubber nursing goods, and a table on which work can be done.

Our bath and toilet rooms must be large enough to contain two toilets, with separate door for each, a lavatory, and a separate compartment for the bath; and such a bath room should be large enough to contain a tub 5½ or 6 feet, set into the walls on three sides, with space enough on the fourth side for the bather to undress and dress. It is always understood that the toilets in these rooms are at the windows because they need ventilation, and the baths toward the corridor because direct, close ventilation is not so necessary.

The dimensions of the operating room are rather elastic, and will depend in large measure on the wishes and technic of the surgeons. Some operators and some hospitals use very little furniture, nearly all the paraphernalia being kept in an adjacent room, leaving the operating room itself entirely bare, except for the table and anesthetizer's stool. In these hospitals a scrub sink is the only other furniture. In other hospitals and for other surgeons a room full of furniture is required—the table, the anesthetizer's stool, revolving solution basins with arm dip, table for instruments, the drum stand, a goose-neck floor lamp, cautery apparatus, a scrub sink, and slop sink. The dimensions of the operating room must be predicated on the wishes of the surgeons in these respects. But it is very highly necessary to have certain auxiliary rooms as a part of the operating department—an anesthetic room, which may be used likewise as a preparation room; there must be a nurses' work room, large enough to hold a good-sized table, or even two tables, and a wall cabinet for supplies. Sometimes the instruments are kept in this room, but it is not an ideal arrangement because there is running hot and cold water in this room, and vapors are likely to settle on the instruments and tarnish the metal. Instruments should be kept dry, and, therefore, it will be better if they are kept in a room without running water and in a case with a good lock, and with glass on three sides and glass shelving.

In thinking about this small hospital, we are looking forward to a time when additions will be required, and it should be possible to so build this first unit that a second and even a third can be added without disturbing any part of what has

[1] This is the fifth in a series of six papers on Creating, Organizing, and Managing a Small Community Hospital. Next month the organization will be discussed, administrative and medical.

already been built, and without tearing out any partitions.

In the plan shown, the location of the kitchen in the basement is not ideal in its relations to the dining rooms, which are across the corridor, but provision is made between the nurses' and officers' dining room and the dining room for the help for a service room, to which a portable cart may be wheeled, and from which either or both dining rooms may be served. The arrangement shown makes possible a large refrigerator, with a high ice hole at the top, through which ice may be furnished from the rear of the building.

It will be noted that ventilation is secured through the corridors from end to end of the building, and, when a second and third addition is made, this same through ventilation is easily arranged.

This building faces to the north, and on the second floor, with northern exposure, is shown the operating suite, with one large operating room and with one or two other rooms, called by different names, that can be used for dressings or for emergency operations when more than one surgeon wants to operate at the same time. It will be noted that we have left a sort of circular or octagonal corridor in this operating suite; later on, when it becomes necessary to add a wing at this end of the building, the partitions can be changed at this point and the whole straightened out with very little expense, and thus the corridor continued through into the new wing, and the present operating room can then be taken, if desired, for an obstetrical room and one of the present auxiliary rooms can be turned into a nursery. During the occupancy of this first unit as a complete hospital, some of the rooms about the entrance of the building will be used for patients, and afterward they can be given over to a separate office for the superintendent, a doctor's examination room and the like, or any other administrative use can be made of them that seems desirable.

In order that architects and trustees and superintendents may avail themselves of the principles attempted to be illustrated in these drawings, a somewhat more detailed description of this little building follows:

This hospital will furnish accommodations for two 4-bed wards, two 2-bed wards, and four private rooms, making a total of 16 beds. In case the private rooms are used as 2-bed wards, it would give 4 additional beds, making 20 in all, and the 4-bed wards may take 6 beds, making in that case a hospital of 24 beds.

Assume that the hospital has a fair-sized lot, with a south frontage on a street, this frontage to be 200 feet wide and 180 feet deep, preferably a corner lot. The lot plan shows a small hospital, 86 feet long and 40 feet wide, located so as to have ample room for future additions and still have plenty of light and air when all the buildings are up. The hospital, as indicated by No. 1, would be placed in the center of the lot and 40 feet from the south lot line. The first addition would be indicated by unit No. 2, placed 10 feet from the west lot line and 20 feet from the south lot line, extending back within 5 feet of the north lot line, with corridor joining that of the present building. The power house would be located in the center at the rear of lot, 5 feet from the north lot line, as indicated by unit No. 3, and connected to the hospital by a tunnel, as shown by unit No. 4. The power house would have the boiler room in the basement and the laundry on the first floor, and could be built whenever desired without any inconvenience to the hospital. The third addition would be indicated by unit No. 5, placed 10 feet from the east lot line and 20 feet from the south lot line, extending back within 5 feet of the north lot line, with connecting corridor to the present building. A part or all of either unit No. 2 or No. 5 could be built at one time, to meet the requirements of the hospital. The permanent operating department should be located in the north end of unit No. 2, so that there would not be any interference with the present operating department when unit No. 5 is built.

The hospital as shown, built of fireproof construction, having concrete foundations, hollow tile walls stuccoed on the exterior, column and floor construction of reinforced concrete, tar and gravel roof, wood door and window frames, wood sash and doors, gypsum partitions, cement floors in basement, linoleum floors on first and second floors, except in the operating department, which would have terrazzo floors, electric wiring, plumbing, heating, dumbwaiter, and elevator, would cost about $35,000.

The hospital as shown, built practically the same as above, except the floors would be of wood joist construction, partitions of wood studs, with wood lath and plaster, would cost about $25,000.

Both of these estimates would necessarily depend on the location and local conditions, and therefore are approximate only.

BASEMENT FLOOR

The main kitchen No. 1 is connected directly to the dumbwaiter No. 3, which serves the diet kitchens on the first and second floors. The vegetables and meats would be prepared in room No. 2, so that the main kitchen can be kept as clean as possible. This room is provided with a large

built-in refrigerator as shown by No. 5, which is iced from the outside of the building. Hall No. 4 is provided so that dumbwaiter may be used from the hall side without entering the kitchen. Grade entrance is provided at No. 6. The elevator machine will be placed in a room directly under stair landing No. 7, with entrance through hall No. 8. Ambulance entrance to elevator is shown at No. 10. Morgue No. 14 is entered only through elevator hall No. 12. Soiled clothes closet No. 13 is directly under the clothes chute No. 11 on the first and second floors. Boiler room No. 17 is entered from the inside of the hospital through hall No. 15, and from the outside by grade entrance No. 16. Fuel room No. 18 is easily accessible to the boiler room and coal may be dropped through a manhole. The x-ray room is provided as shown by No. 19. Help's toilet and locker rooms are shown at Nos. 20 and 21. Drug supply room No. 22 and kitchen stores No. 24 are centrally located and close to the grade entrance. The help's dining room No. 25 and the nurses' dining room No. 27 will be served from the serving room No. 26, which will also contain dishwashing machine, so that the dishes from these din-

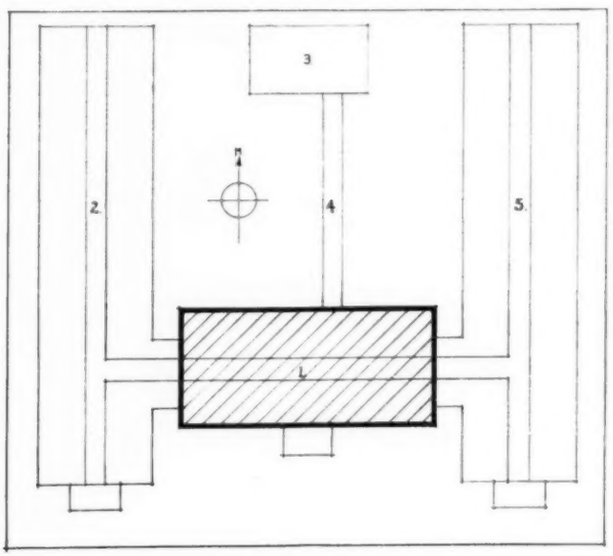


Fig. 1. Lot plan.

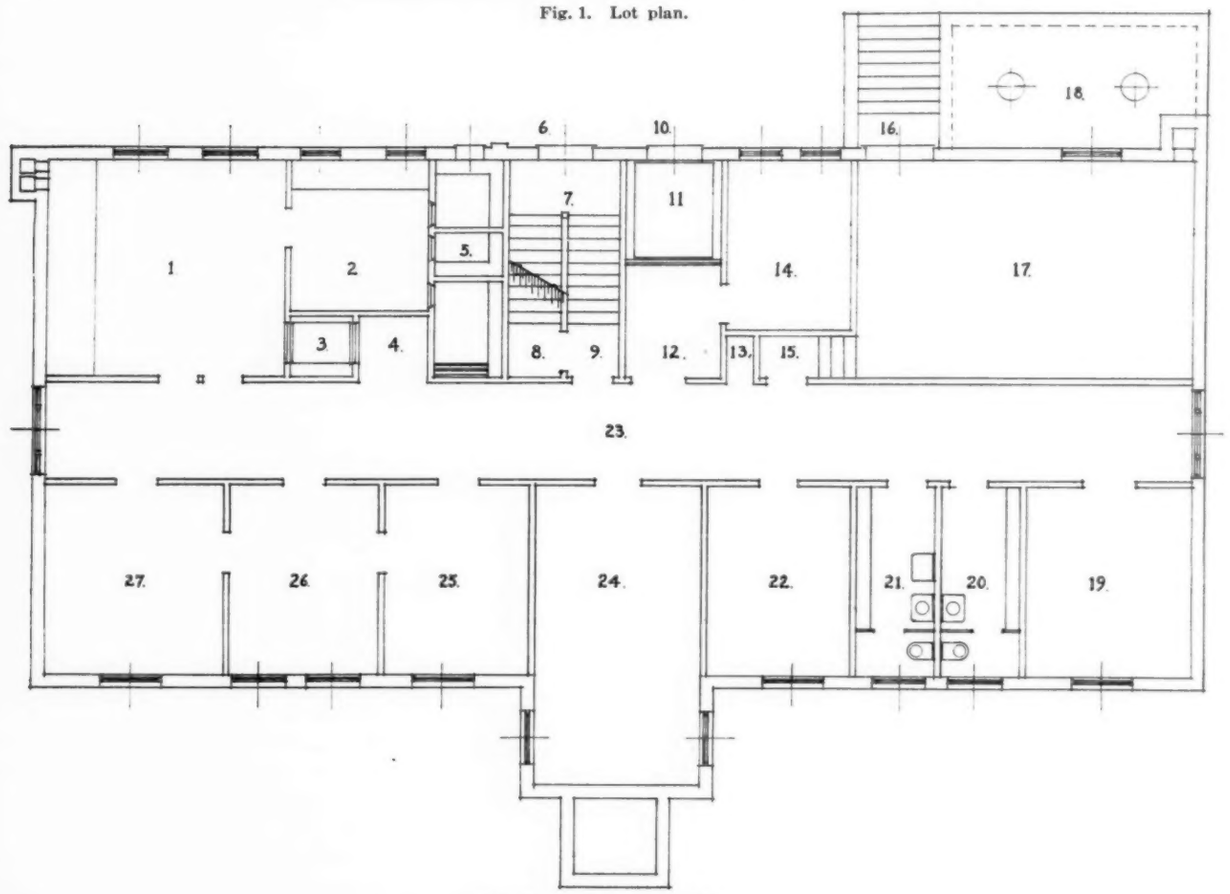


Fig. 2. Basement floor plan.

1. Main kitchen.
2. Vegetable and meat preparation room.
3. Dumbwaiter.
4. Hall.
5. Large built-in refrigerator.
6. Grade entrance.
7. Stair landing.
8. Hall to elevator machine room.
9. Stair hall.
10. Ambulance entrance to elevator.
11. Elevator.
12. Elevator hall.
13. Clothes chute.
14. Morgue.
15. Hall to boiler room.
16. Exterior entrance to boiler room.
17. Boiler room.
18. Coal room.
19. X-ray room.
20. Male help's toilet and locker room.
21. Female help's toilet and locker room.
22. Drug supply room.
23. Corridor.
24. Kitchen stores.
25. Help's dining room.
26. Serving and dishwashing room.
27. Nurses' dining room.

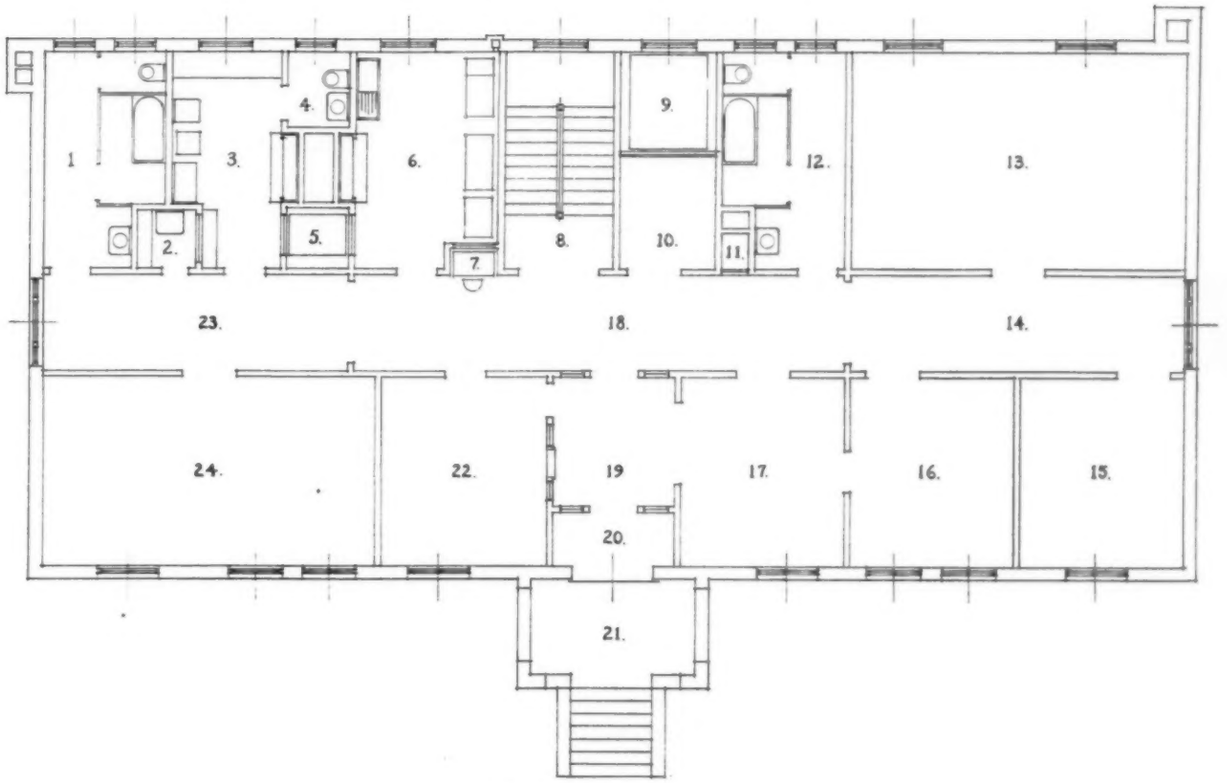


Fig. 3. First floor plan.

1. Toilet and bath room.
2. Porter's room.
3. Utility room.
4. Nurses' toilet room.
5. Dumbwaiter.
6. Diet kitchen.
7. Nurse's station.
8. Stair hall.
9. Elevator.
10. Elevator hall.
11. Clothes chute.
12. Toilet and bath room.
13. 4-bed ward.
14. Male patients' department.
15. 2-bed ward.
16. 2-bed ward.
17. Reception room.
18. Corridor.
19. Lobby.
20. Vestibule.
21. Front porch.
22. Office.
23. Female patients' department.
24. 4-bed ward.

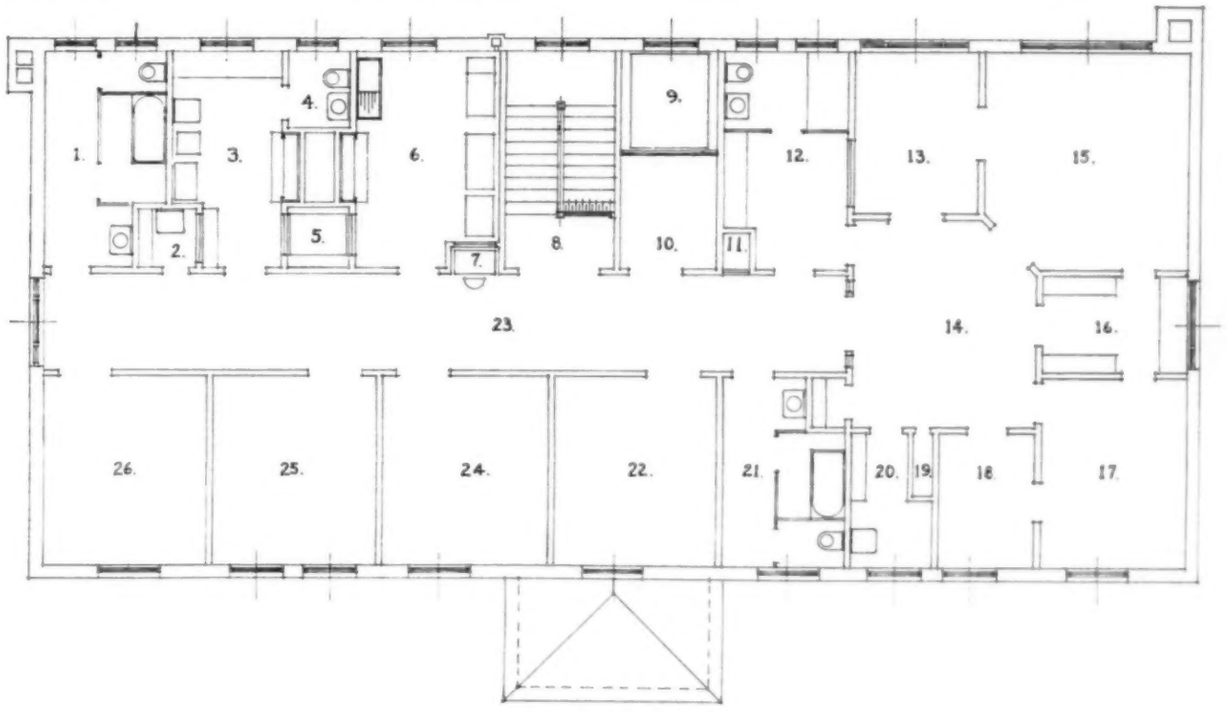


Fig. 4. Second floor plan.

1. Toilet and bath room.
2. Porter's room.
3. Utility room.
4. Nurses' toilet.
5. Dumbwaiter.
6. Diet kitchen.
7. Nurse's station.
8. Stair hall.
9. Elevator.
10. Elevator hall.
11. Clothes chute.
12. Doctor's wash room.
13. Anesthetizing room.
14. Operating department.
15. Operating room.
16. Instrument and sterile supply room.
17. Sterilizing room.
18. Preparation room.
19. Blanket drier.
20. Utility room.
21. Toilet and bath room.
22. Private room.
23. Corridor.
24. Private room.
25. Private room.
26. Private room.

ing rooms may be washed and kept outside the main kitchen.

FIRST FLOOR

The male patients' department No. 14 is located in the east end of the building, and the female patients' department No. 23 is in the opposite end, each provided with its respective toilet and bath rooms Nos. 1 and 12. Room No. 2 is provided for the porter, with sufficient room for the brooms, mops, etc. Utility room No. 3 is provided with slop hopper, sterilizer, bed-pan rack, table linen and medicine case, and a door to dumbwaiter No. 5. The nurses' toilet room No. 4 is entered only through utility room. Diet kitchen No. 6 is equipped with a sink, steam table, refrigerator, and a table, with a door to the dumbwaiter No. 5. Nurse's station No. 7 is centrally located, so as to give good control with nurse's signal light on wall directly over her desk, which sets into a wall recess, so that only the nurse's chair projects into the hall. A door is provided in the partition between the reception room No. 17 and the 2-bed ward No. 16, so that room No. 16 may be used as a doctor's examination room later, with access to reception room through this door. The 4-bed ward No. 24 could be divided into 2-bed wards, same as shown in Nos. 15 and 16, so that these rooms may be available for offices later without any alterations.

SECOND FLOOR

The four private rooms are shown by Nos. 22, 24, 25, and 26, and have been provided with male and female patients' toilet and bath room Nos. 1 and 21. Rooms Nos. 2, 3, 4, 6, and 7 are the same as described for the first floor. Doctor's wash room No. 12 is provided with a window so that the surgeon may view a patient being anesthetized in room No. 13 while he is preparing for the operation. Corridor No. 14 gives easy access to all rooms in the operating department. Operating room No. 15 is directly connected to the anesthetizing room No. 13, corridor No. 14, and instrument and sterile supply room No. 16. Sterilizing room No. 17 is connected to the instrument and sterile supply room No. 16 and preparation room No. 18. Blanket drier is provided at No. 19. Utility room No. 20 is so equipped that the entire operating department can be kept clean without leaving this department. When the permanent operating department has been installed in the north end of unit No. 2, this department may be readily changed into an obstetrical department.

It will be noted that the power plant for the first unit is included. The power and heat machinery may be of such character that they may be moved to separate power plant when such is needed by the expansion. The space now to be used for power plant can later on be used for such other purposes as may seem desirable.

It will be noted also that no arrangement is made for laundry, and that the first provision for this will come with the building of a permanent power plant. In the meantime the large room under the stairs can be used for a laundry if necessary.

THE HOSPITAL OR FIFTH YEAR

Some Definite Standards Are Being Tried Out in New York—Medical Schools to Control Hospitals That Are "Satisfactory"

By E. H. LEWINSKI-CORWIN, M. D., New York

OVER a year ago the attention of the Public Health Committee of the New York Academy of Medicine was called by the Department of Health of this city to the need of amending the laws of the state in such a way as to afford protection to the public from incompetent physicians. It was suggested that legislation, similar in principle to that of Pennsylvania, Rhode Island, and New Jersey, should be enacted, demanding at least a year of hospital experience from all candidates for medical licensure. Before attempting to advise legislation of this sort, the committee endeavored to ascertain how many prospective physicians failed to secure such experience before entering into practice, and also what would be the attitude of the medical schools of the state toward such an amendment to the law.

From the statistics available it was ascertained that a large proportion of medical students of New York state secure hospital positions immediately after graduation. It was also ascertained that those who do not receive hospital appointments do not fail to do so because of any lack of hospital accommodations in this state, but because of the character of the applicants or on account of their economic status, which prevents them from delaying their entrance into practice any longer than they are legally obliged to do.

The attitude of the schools was unanimously favorable toward the principle of requiring a minimum of a year of hospital experience of an educational character, but numerous difficulties were pointed out in the realization of such a plan. The foremost difficulty is the lack of standardiza-

tion of hospitals; a second is the relation of the school to the hospital. A year's hospital experience may mean much or little; the pivotal point being efficiency in the organization of the hospital. Then, many medical schools have no control over hospitals, and they are loath to have their students pursue so important a part of their medical education outside of the control of the faculty. It is feared that in some instances students would work under the guidance of men not properly qualified to teach. Some of the schools feel that, should a fifth year be added, it should not be given over entirely to clinical work, but that the curriculum of the school should be recast and the clinical work distributed over two or three years, and that in a part of the fifth year certain theoretical studies be pursued. It was also pointed out that many students do not intend to practice, but prepare to take up laboratory work, and that they should not be compelled to take a year of clinical work in the hospital.

Realizing that many of these objections were valid, the committee, after conferences with the deans of some of the medical schools and the assistant commissioner of the State Department of Education, proposed a simple amendment, which retained the essential principle, but which was so worded as to allow sufficient elasticity to meet the various plans which the medical schools might wish to adopt. The proposal provided that, in addition to meeting existing requirements, an applicant for a license may apply for it only after completing twelve months of satisfactory clinical work in a hospital having a daily average of not less than thirty patients, and having not less than fifty beds devoted to the treatment of medical and surgical diseases, and registered by the regents as maintaining at the time satisfactory clinical and laboratory standards.

The proposal made in no way affects the granting of the medical degree; the twelve months of clinical work may or may not be included in the college curriculum, according to the judgment and desire of college authorities; the student will be free, if he chooses, to do a large part of the required clinical work during his second and third college vacations, and therefore the entry of the student into practice need not be long deferred. Under the law as proposed a college may or may not add a fifth year to its curriculum, but, at all events, the public will be protected by the requirement that each applicant for a license shall spend at least twelve months in clinical work before coming up for examination. Those who do not intend to practice medicine need not, of course, take the examination for licensure, but, if they should at any future time decide to take up the practice of medicine, they will be compelled to meet this requirement of a year of clinical experience. This requirement will, of course, be applicable to graduates of schools in other states, and the law, therefore, will not impose a handicap on the medical colleges of New York to the advantage of competing schools elsewhere.

The committee avoided any attempt to define "satisfactory" hospital standards, believing it wise to permit the regents to feel their way in this new field, guided by the authorities of the medical schools. The proposal that the hospitals in which clinical work is done shall maintain "satisfactory" clinical and laboratory standards corresponds to that part of the present law which declares that the professional requirement shall include four "satisfactory" courses in medical schools maintaining "satisfactory" standards.

One of the medical schools in this state has objected to this proposed amendment on the ground that it compels the applicant for a license to keep fresh in his mind for another year the information necessary to pass the present style of examination, an objection which should hardly be seriously entertained. A well-trained medical graduate should be able to retain for more than one year the knowledge acquired in medical school. In this respect the college referred to stands alone; all the others have indorsed the recommendation fully, and some went so far as to advocate even more rigid requirements. It is probable that legislation along the lines suggested by the committee and indorsed by the great majority of schools in this state will be enacted into law in the near future.

GREAT FUND TO PENNSYLVANIA HOSPITAL

Trustees Wisely Decide to Give Anna Jeanes Bequest of Three Millions for Special Department

The recommendation that a fund of more than $3,000,000 for the treatment of "cancerous, nervous, and disabling ailments" be given to the University of Pennsylvania Hospital, Philadelphia, is made by Dr. Winford Smith, superintendent of Johns Hopkins Hospital, Baltimore, who was engaged by the trustees of the fund, which is the estate of the late Anna J. Jeanes, to make a survey with the view of determining the best way in which the money can be used for the purpose stipulated in the will. The Jeanes bequest became available in 1908, and the trustees have considered the establishment of a hospital, but it was finally decided that an additional hospital is unnecessary and that the bequest can doubtless be used to better advantage by one of the existing institutions of the city.

The Homestake Mining Company, of Lead, South Dakota, has just set aside $50,000 for the erection of a hospital to take care of their employees and families. Construction work will be commenced as soon as plans can be completed.

The MODERN HOSPITAL

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The Philadelphia Meeting

The Philadelphia meeting of the American Hospital Association, just closed, was not only the largest and most enthusiastic meeting the association has ever had; it was very much more than that. It departed in some radical directions from precedents of former days, and by specific action placed itself on a new and higher plane, and without any doubt the work of the association henceforth is to be constructively helpful to the hospitals throughout the world. One of the primary acts that make this result certain was the creation, by constitutional amendment, of a permanent secretaryship, with an all-time paid officer and with permanent headquarters and an operating staff. Part of the money for this new departure came, of course, from the earnings of the commercial exhibit, but it is understood that, because of the enthusiasm and the large attendance at Philadelphia, some people with means have determined to help the association with considerable sums, and it is believed that from now on the association will not lack money to put into effect some of the constructive work that has long been discussed and eagerly and anxiously hoped for.

Another very important action taken by the Philadelphia meeting was the creation of a board of trustees who shall not change from year to year, as the executive committee has done heretofore, and whose appointment will not be made by the president of the association, who likewise changes from year to year, but who will be elected, one new member each year. It was a very wise provision that made the president and treasurer of the association members of the board of trustees, and provided for the election of one of the three trustees annually. This plan will make it possible—though hardly probable, except under great emergency and possible provocation—for the association to take the executive management out of the hands of any board at any regular annual meeting and to place it under a new personnel, and with any new policies that the association may wish to have carried out. Moreover, the personnel of the first board of trustees is ideal with which to begin an entirely new form of administration of the association. Mr. Borden is a business man of long experience and large interests, and he is a lawyer of standing; Dr. Winford Smith is, of course, one of the best hospital administrators in the country and handles large affairs, and he knows the association, its needs, and its ideals as well as any other man in the country; and Miss Keith is a successful administrator, a woman of excellent judgment and hard common sense. This board will guide the association with a steady hand, and, while the members may be expected to be extremely conservative, yet they are certain to be progressive and to initiate some, if not all, of the constructive policies that the association has been thinking about for years back.

The new bureau of information for which provision was made under a resolution, in pursuance of the report made by Dr. Ross on the development of the association, should be a most helpful agency. There has been a standing committee to try to solve this problem for several years, made up of such men as Dr. Howell and Mr. Clover. They attempted to get the public health service of the Government to inaugurate such a bureau, but Congress refused to allow that service to act; then they attempted to secure the funds and the initiation from one of the large foundations, and that plan, too, failed. Now the association is to do the work itself through its own agencies and under the direction of its own trustees, a most fortunate solution.

We may expect something tangible from the action of the association in providing for a committee to cooperate with the American College of Surgeons and other organizations in securing some sort of standardization of hospitals. There has been a committee on standardization for sev-

eral years, made up of Dr. Hurd, Dr. Washburn, and Dr. Hornsby. This committee advisedly has confined its activities to a general helpfulness along educational lines; that educational work has gone well forward, and some pretty definite plans have been established along which the new composite committee will find it a little easier to travel. The recent formation of the Catholic Hospital Association will very greatly help in this direction. This great group of institutions was not at the outset kindly disposed toward the general principle of standardization. They objected to any attempt on the part of an outside committee to invade their privacy; hence it seemed desirable that an association should be formed among themselves, and there seems to be hardly a question that the able president of this association, Rev. Chas. B. Moulinier, will take an enthusiastic part in the work of Dr. Bowman's committee.

Another innovation that will probably be initiated by the new secretary will be a bureau of employment, through whose agency efficient hospital workers may find proper positions and through which hospitals needing trained workers may find them.

Altogether, the Philadelphia meeting of the association was most auspicious, and bodes a new era for the hospital activities of this country.

The Small Hospitals—At Philadelphia

Not very much has been said in aftermath about the two symposiums on small hospitals at the Philadelphia meeting. The secretary has not even included these two sessions in her minutes of the meeting.

But these two sessions conducted by Miss Jordan, one of the vice-presidents of the association, are destined to mean very much to the small hospitals of this country, and there were two topics discussed in them about which we shall hear very much more and out of the discussion of which are to come perhaps some very radical changes in administration.

Up to the present time, administrators of small hospitals have been chosen by trustees without any measuring rule whatever. Sometimes a lay woman who has been made superintendent of a small hospital because she was the widow of some good doctor or some good clergyman, who had kept a neat home and had shown thrift and enterprise in her small sphere—and who needed the salary; sometimes the superintendent was chosen because of his or her enthusiasm and devotion to the cause of the sick—and wholly without any other qualifications. Sometimes a good nurse was supposed by a board of trustees to be qualified for the executive position solely because she was a good nurse, and perhaps without any executive ability whatever, and without knowledge of the executive business of a hospital.

This same thing must go on for a few years perhaps, but at Philadelphia the initiative was taken in the symposium on small hospitals that must lead eventually to an organized movement for the training of executives for small institutions. Miss Goodrich, of Teachers' College, Columbia University, sounded the keynote along this line in her paper. Teachers' College has generally been understood in the hospital world as a place in which only college-bred and college-trained and high intellectuals might hope to enter. Miss Goodrich tells us that that is not true, and tells us in such terms that the writer of this editorial felt constrained to visit Miss Nutting and Miss Goodrich after the Philadelphia meeting had ended, and he found there a vastly different state of things. He found an inspiration for educated, cultured women, but he found also a place to which any hospital superintendent might go, and while there live in an atmosphere inspiring and helpful, especially to those who had been deprived of early opportunities for foundation education. He was told that hospital superintendents would be made welcome, no matter how serious their want of early training was, that they could remain as long or as short a time as they could afford to spend, and, while there, obtain work befitting their positions and especially befitting their educational studies.

Dr. Babcock, at Grace Hospital, Detroit, is already giving a course in the training of hospital executives. Of course, only a few can be accepted at one time, and thus the opportunities are extremely limited, but Dr. Babcock has turned out some exceptionally able executives for small institutions, and it is almost possible today to pick out Dr. Babcock's graduates by merely going into and looking over a hospital and talking with the superintendent.

The point that we make is this—that there is at present limited opportunity for superintendents in small hospitals, no matter how limited their education has been, to vastly improve themselves; and a great many of them had better be thinking about this, because, as time goes on, another class of women is growing up, women of sound fundamental education, who, after their preliminary scholarship is over, are taking up regularly long prescribed courses in hospital management. Most of these women are already trained nurses, and these women are to be the admin-

istrators of the hospitals of 100 beds and less of the future. Whether one of them shall step into your place or my place today or tomorrow is largely a matter for ourselves to determine. If we go along from day to day, satisfied with what the day brings forth, and without any effort to improve our efficiency, our places are likely to be filled tomorrow, or next week, or next year; if we take advantage of the opportunities to qualify for our work, we may be able to hold our own with these well-trained, well-educated women. This is a warning that the superintendents of small hospitals had better take to themselves.

Figures for Standardization

While we have all been thinking about elevating standards in our hospitals, we have been almost in the attitude of Atlas, the fabled giant, who, if he had had a fulcrum, might lift the world. It seems we have wanted a fulcrum; we have wanted a basis on which to found some standards. Many of us have been thinking of a unified system of accounting for large and small and special hospitals as the best nucleus around which standardization might be achieved. Dr. Warner's paper on accounting, read at Philadelphia, with his resolution for the appointment of a committee to study this intricate subject, seems to have focused this problem somewhat and given it definite form.

Dr. Warner, in common with many of us, feels that, if we could all operate under a unified accounting and bookkeeping system, we would have a basis for comparisons, one hospital with another; we would have some idea of exact expenditures in our hospitals and the items that might be well covered in accounting for these expenditures, and in that way we could measure our service to the sick, not wholly perhaps, but in a very great measure. For instance, if it were known precisely how much money a given hospital was spending for its pathological work, there would be a basis for determining the probable amount of pathological service that institution was giving to its sick, and the mere having of these figures of expenditure would carry with it the necessity on the part of the hospital to go into details, in its annual reports, as to precisely what that pathological department was doing and under what conditions. The same would be true of all departments in the hospital.

It is inconceivable what such information could be made to mean to hospital trustees. Nowadays trustees, administrators, and bookkeepers are able to deceive themselves concerning the activities of their institutions because there are no guides by which definite service may be measured. Trustees, as a rule, are not very accurate thinkers when it comes to the affairs of their hospitals; they take many things for granted, and a clean house and prettily draped windows are oftentimes accepted by them as evidences of a well-managed hospital, and there are no cold facts facing them to awaken them from delusion. An accurate accounting system will come nearer to doing this than any other half-dozen things that might be suggested. Per capita cost means absolutely nothing to us today; it tells only one side of the story—viz., expenditure—and it tells even only one side of the story of expenditure because it takes into no account the personal equation, the efficiency of hospital employees.

Before this new committee goes very far, it will find itself under the necessity to measure service in hospitals and to interpret this service into dollars and cents, and this seems not an impossible thing to do.

Work for Child Welfare

In another column of this issue will be found a news note about a meeting recently held in Chicago to talk about and, if possible, to initiate a program for more effective child welfare work throughout the country.

This meeting may well usher in an entirely new epoch concerning child welfare. At the present time there are probably fifty organizations of national scope, all or a part of whose work concerns children, and nearly every city and many large towns have organizations working independently to the same end. Many of these agencies are doing splendid work, all of them are spending a great deal of money and energy, and the aggregate of both must foot up a tremendous sum.

The questions are: How much of this work is overlapping? How much work is wisely planned? How much of it is getting actual, tangible results? And last, how much really necessary work for children is being left untouched or ineffectively performed.

There is no doubt that Miss Lathrop struck the keynote of the whole thing when she insisted at the meeting that, to do child welfare work effectively, the work must commence with the mother and on her behalf, and Miss Lathrop also put her finger on a very much neglected item in child welfare work when she demanded recognition for children in rural communities and in small towns.

Many of us are too much inclined to think that the slums and tenements of the great cities are

the only places in which children are neglected, but those of us who are in touch with farm life and with small towns know perfectly well that rural children are not only neglected by their parents and allowed to just grow up like Topsy, without any attention being paid to the items in their development such as skin, teeth, eyes, and ears, but that our boasted ambitions in regard to universal education are wofully ignored in many rural communities. There are many hundreds of thousands of children on the farms who have the merest smattering of an education, some of them not even sufficient to whet their appetites for more.

If the ambitions of the Council on Health and Public Instruction are to eventuate in an incisive program for child welfare, such a program will take us also into the juvenile courts and correctional institutions. Indeed, the subject is so vast and so much in its infancy at the present time that the Council's activities cannot fail to call attention to some glaring faults of commission as well as omission, and much good must come out of it.

HINTS ABOUT BUYING MOTOR AMBULANCES

Touring Car or Limousine Chassis Not Suitable For Ambulance Bodies—The Ethics of Buying

These days we hear a great deal about hospital efficiency in regard to accounting and the purchasing of various supplies, and we are drawing on manufacturers of hospital commodities to help us in directions in which they are experts. The hospital ambulance is one of these commodities, and one about which the average hospital superintendent is not expected to know very much.

There is a tendency just now for hospitals to change from horse-drawn to motor-driven ambulances, and, as this question comes up before the board for consideration, the first inquiry is about the price. It usually happens that some member of the board has a very good touring car or limousine that he would like to exchange for a new one, and when the subject of ambulances is talked of he immediately considers how he can save the hospital some money and at the same time make a sale of the automobile with which he is thinking about parting. This matter is no sooner mentioned in the board than some other member realizes that he is in about the same position. This causes a division of opinion as to the merits of each chassis, and, as usual, each owner feels that his chassis is the best, and that the board will be very unwise to do anything but buy his chassis. He will offer it at a price that, on the face of it, seems attractive.

No consideration has been given to the fitness of the chassis for the service, as each member of the board seems to take it for granted that any large touring or limousine chassis would fill the bill. This is a serious error. Pleasure cars, as a rule, are not meant to be used under ambulances or under any body that has considerable length. They are not suitable, as nearly all pleasure cars have a raised frame in the back over the rear axle, which makes it necessary for a heavy subsill work to overcome the raise. This elevates the ambulance body higher than it should be. Then, again, they are usually six- or eight-cylinder cars, which gives them a long wheel base, but this excessive wheel base is made possible by the front axle being out so far in front. While the chassis may have a long wheel base, it may be very short back of the driver's seat. We all know, at a glance, that the rear seat in a large touring car or limousine is directly over the rear axle.

An ambulance must be not less than 6 feet 5 inches or 6 feet 6 inches back of the driver's seat, and, if the rear axle is only 39 inches or possibly 42 inches back of this point, it means that the axle is located almost exactly in the center of the space used for carrying a recumbent patient. This means that every jar of the rear wheel strikes the patient in the middle of the back, and makes the riding almost unendurable. We talk a great deal about first aid to the injured, and then deliberately place a patient in a vehicle of this kind and drive him for miles to a hospital for attention, while the jar and the jolting are almost enough to distract him. In some cases this jolting may mean even death, whereas, if a suitable vehicle had been provided, the removal of the patient could have been made comfortable and almost pleasant.

One will see by these few facts that any hospital board that settles this question by substituting a makeshift is making a serious mistake. There is not much money saved, because by the time the chassis is rebuilt and put in good condition (never, of course, as good as a new chassis), the price will amount to as much as, or within two or three hundred dollars of, the cost of a suitable chassis for this service.

The first consideration should be the best chassis to give a long length back of the seat. You will not find this in the touring cars, but must go to the truck department, where you can find any number of three-quarter-ton chassis that have long wheel bases properly arranged to accommodate a body in which a patient will be entirely, or nearly so, in front of the rear axle. These trucks are supplied with pneumatic tires, and can run at a speed that is entirely satisfactory. Supposing one were to use a chassis of this kind costing $1,000 to $1,500, and place a body upon it that would cost from $600 to $1,000, having incorporated in the body all the equipment necessary for the service required, would not a hospital be serving itself much better?

There is still another feature. The local carriage builder is often taken into the confidence of the board. He may never have built an ambulance, and knows nothing about the requirements, yet local pride and a desire to benefit someone in the locality is the factor that settles the matter, and the order is placed with someone who, while he may be a good carriage builder, knows absolutely nothing about ambulances. It would be better for some first-class firm that has a reputation for building ambulances to be called in and the matter taken up with it. The board would then get the best there is to be had for the service required, and would save money in the end.

It is usually best for any board of trustees not to make purchases among themselves for a public charity in which they may be interested.

Architects Glass & Butner, Fresno, Cal., are working on plans for a 100-bed fireproof addition to the Fresno County Hospital. The building will contain administration offices and four large wards, each ward being a complete unit, with diet kitchen, nurses' room, bath room, etc. A feature of the structure will be the elimination of angles, including the omission of window casements. Ramps will be substituted for stairways.

PHILADELPHIA CONVENTION SURPASSES ALL PREVIOUS MEETINGS

Two of the Largest Hotels Taxed Beyond Capacity—More Than Twelve Hundred People in Attendance—Social Program a Brilliant Success—Commercial Exhibit Sets Precedent

With the great banquet hall on the roof of the Bellevue-Stratford Hotel packed to its capacity of 800 people, with the corridors in the rear of this banquet hall thronged with a milling crowd, and with the office floor of the hotel packed with people unable to find entrance to the meeting, President Winford Smith called the American Hospital Association to order at 10:30 o'clock on the morning of September 26. There were approximately 1,200 people in the hotel to attend the meeting. More than 600 of these were members of the association, many others joined later on during the meeting, and the others were wives and traveling friends of members.

The Philadelphia meeting was by all odds not only the largest in attendance that the association has ever had, but it was one of the most enthusiastic meetings that any association ever had. There were members from nearly every corner of this country—Dr. McEachern, from Vancouver General Hospital, Vancouver, B. C.; Dr. Sinclair, from the Winnipeg General Hospital; Dr. Clarke, from the Toronto General Hospital; Mr. J. H. S. Parke and Mr. H. E. Webster, from Montreal; Mr. A. B. Tipping, of Touro Infirmary, New Orleans; Dr. F. K. Camp, from Oklahoma; Dr. Dorr, from San Francisco; and even Great Britain was represented in the person of Sir Henry Burdett, editor of *The Hospital*, and one of the famous hospital authorities for the past twenty years.

The local committee of arrangements had done their part wonderfully well, and the association will probably never meet in so well-arranged a building again. The roof garden of the Bellevue-Stratford, occupying a space nearly 200 feet square, was rented by the committee for the full four days of the meeting. In the great banquet hall the general meetings were held, and in a smaller hall at one side were the section meetings and such improvised gatherings as the occasion developed. All the rest of the roof garden was occupied by the commercial exhibit. Unfortunately, those who attended the meeting had not taken the wise precaution, as a rule, to engage accommodations at the Bellevue-Stratford beforehand, and on Monday evening and Tuesday morning many hundreds of people flocked to the hotel, expecting to be given accommodations at once. With every thought for the comfort of visitors to the convention, the management of the Bellevue-Stratford, certain that that hotel would not be able to accommodate the crowd gathering, arranged with the Ritz-Carlton, just across the street, to take the overflow, and eventually both these magnificent hostelries were filled to their utmost capacity, and many visitors were compelled to look for lodging elsewhere. Moreover, the dining rooms both of the Bellevue-Stratford and the Ritz-Carlton were taxed to more than their capacity, and there was some complaint about the seating, especially at the evening dinner.

A precedent was set at Philadelphia in that very many of the women members of the association and some of the men wore full dress in the evenings, and the dinner was usually made a gala affair. One could have no idea that our hard-working women hospital superintendents, whose minds are filled to overflowing all the year with their arduous work, could put it all aside so easily and assume the dress and air and habits of society butterflies; but this is precisely what was done. Some of our women are brilliant and charming, and in their beautiful evening gowns made the hotel look like a rendezvous for the "400" on some very august occasion.

It transpired that it was a wise thought on the part of the San Francisco meeting last year to demand a social program for Philadelphia. The women appreciated it highly, and the men did everything in their power to give pleasure to the gentler sex. Those members of the association who had failed to attend the meeting missed something out of their lives, because the four days in Philadelphia were literally brimmed full of a kaleidoscopic program of intellectual feasting and social entertainment.

There were four chief social events—the theater party at Keith's on Wednesday evening, the luncheon and reception at the Pennsylvania Hospital on Thursday noon, the automobile drive about the wonderful city during the afternoon of the same day, and simultaneously the boat

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PRESIDENT,
DR. ROBERT J. WILSON,
Superintendent New York Hospitals,
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Superintendent Lakeside Hospital,
Cleveland, Ohio.

SECOND VICE-PRESIDENT
DR. D. L. RICHARDSON,
Superintendent Providence City Hospital,
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MISS GEORGIA M. NEVINS,
Superintendent Garfield Memorial Hospital,
Washington, D. C.

SECRETARY,
DR. WILLIAM H. WALSH,
Philadelphia, Pa.

TREASURER,
MR. ASA BACON,
Superintendent Presbyterian Hospital,
Chicago, Ill.

TRUSTEES,
MR. RICHARD P. BORDEN,
(Three years)
Trustee Union Hospital,
Fall River, Mass.

DR. WINFORD H. SMITH,
(Two years)
Superintendent Johns Hopkins Hospital,
Baltimore, Md.

MISS MARY L. KEITH,
(One year)
Superintendent Rochester General Hospital,
Rochester, N. Y.

ride on the famous old Delaware River. It seemed that, while the city was filled to overflowing with convention visitors, nothing seemed overcrowded. There was plenty of room for everybody; it had all been so wonderfully arranged.

Philadelphia knows how to entertain visitors. In his brilliant, humorous, and witty address of welcome to the convention on behalf of the mayor, Mr. Edward James Cattell, statistician for the city, had, for the first time in the recollection of many of those who heard him, adorned dry statistics so that many times during his speech they drew round after round of applause as he related one after another industrial activity in which Philadelphia excelled. But this would have meant little to the visitors had it not been for the drives and boat rides and the side trips that were made, during which the wonders of Philadelphia were shown off to their best advantage, and then many of those who heard Mr. Cattell's address were sure that he had understated the case.

Referring again to Mr. Cattell's address of welcome, the mayor could not be present, probably because he had the wisdom to know that Mr. Cattell could make a better appearance and a better welcoming speech than his honor himself. It was a most auspicious opening of the convention—the delicious wit and humor interspersed here and there with facts, not only about Philadelphia, but about the hospitals of this country and their importance and the wonderful work they are doing. Many of us wondered that a layman, supposed to have been entirely unfamiliar with facts about hospital growth and the value of hospitals as health agencies and social centers, could state so many interesting facts.

WHAT THE PHILADELPHIA CONVENTION ACCOMPLISHED

Created a permanent board of trustees to administer the association's business affairs.

Created a permanent secretaryship with an all-time, salaried officer.

Initiated an annual commercial exhibit as one of the instructive features of the association; also a source of income that will provide funds with which to do the association's obvious work.

Took a long step forward in appointing a committee to study hospital accounting and bookkeeping, and to bring in a system that may be made uniform for all hospitals.

Voted to conduct the meetings by sections, so that special hospitals may group their studies and topics for discussion.

Appointed a committee to work with the American College of Surgeons and other organizations in a study of the problems of standardization, in the hope that some acceptable solution may be eventually worked out.

To a small extent previous meetings of the association have had for one of their most attractive features the little group gatherings—sometimes for breakfast in the grill room, sometimes for luncheon in the middle of the day, sometimes for the more formal dinner in the evening, and again in the grill rooms and dining rooms far into the night. At Philadelphia this practice was unprecedented; there were literally dozens of these groups, made up usually of both men and women members of the association and their families, and friendships of long standing were renewed and many new friends were made, friendships that will endure and that will result in greater cooperation between hospitals and between the administrators of hospitals. Nearly always in these group meetings there was "shop talk;" many personal problems were brought up that could not be discussed at the more formal sessions of the association; helpful ideas were exchanged, and oftentimes solutions were found for problems that had been extremely difficult. These group meetings should grow in number, in importance, and grow greatly in their results.

THE COMMERCIAL EXHIBIT

Heretofore the association has had, spasmodically, small informal commercial exhibits, not recognized by the association and generally managed by some special local committee independent of the association, or sometimes the hotel at which the association has had its headquarters has provided accommodation, accepted rent money for space, and managed the commercial exhibit. Sometimes the arrangements were even more informal than that, and exhibitors merely stopped at the hotel and exhibited their wares just as a traveling salesman opens up his packages in one of the hotel parlors.

This year, for the first time, there was a formal commercial exhibit, solicited by a definite committee appointed by the president of the association, and held under the auspices of and according to regulations prescribed by the association. It was one of the most valuable features at Philadelphia. There were approximately sixty exhibitors, and very many new things in hospital practice were shown and demonstrated, and the exhibit thus became an educational feature of the association, of perhaps even greater importance and value than the meetings themselves.

The association is now definitely committed to the annual commercial exhibit, and undoubtedly the trustees provided for under the new constitution, adopted at Philadelphia, will have charge, through the permanent secretary, also provided for, of the gathering together and the installation of this exhibit. It will be necessary, of course, that the trustees be responsible for every phase of the commercial exhibit, else it would not be possible to select those things for exhibition that the association should countenance and reject those things that have no educational value. Dr. Walsh, chairman of the local committee at Philadelphia, did wonderfully well with his commercial exhibit in not only providing a sum of $4,000 or $5,000 to provide for the administrative activities of the new salaried secretary and headquarters, and the work that the association knows ought to be done and knows how to do for its members, but he demonstrated that a commercial exhibit must necessarily be managed by the trustees and their executive officer, the secretary, and that a local committee appointed for only one year is not the best agency to handle a commercial exhibit. Such a committee would have to begin all over again each year and embark on an enterprise unfamiliar to its members. So that it seems the commercial exhibit hereafter is to be a regular feature of the meetings.

DISTINGUISHED GUESTS

One of the distinguished guests of the association at Philadelphia was Sir Henry Burdett, editor of *The Hospital*, London, and perhaps the leading public health influence in Great Britain. Sir Henry has been a member of almost every war committee that has had to do with the health of the soldiers abroad and of the people at home. He came to the meeting avowedly for the purpose of learning something about what this country is doing in the matter of care of paying patients in hospitals. Every facility was accorded him to obtain as much light as possible on the problem in which he is engaged. What he is thinking about most is to so change the situation in British hospitals that, whereas now they are equipped to take care of only the poor, leaving the incompetent nursing homes of Great Britain to look after the well-to-do sick, the hospitals themselves can provide for the well-to-do, even royal personages, and obtain at least part of their support from that source. As there was no place on the regular program available for Sir Henry's problem, part of the evening conference devoted to large hospital topics was given over to the purpose. Unfortunately, Sir Henry's mind and heart were so filled with the horrors of war from which he had recently come, that he found himself, in opening his topic, discussing the war from the British standpoint. Those who were not quite in sympathy with the cause of the allies, undoubtedly realized the strong feeling that actuated Sir Henry and were good enough to let the matter pass without argument.

This meeting made a really wonderful contribution to the British hospitals in the discussion of the problem of paying patients, and speakers were selected to discuss the subject from almost every phase of hospital work. Dr. Hurd spoke for the university hospital with a rich endowment, that had pay patients, and that, moreover, had to manage these patients so that many of them could become teaching material for the medical school; Dr. Warner, of Lakeside, discussed the problem from the same viewpoint; Dr. Arthur B. Ancker, of the City and County Hospital, St. Paul, discussed the problem from the standpoint of the large municipal institution supported by the public—that is, the city and county—but that accepted paying patients in addition to the indigent sick; Dr. Chas. H. Young, of the Presbyterian Hospital, New York, discussed the problem from the standpoint of the large gen-

DR. ROBERT J. WILSON,
President American Hospital Association,
Superintendent New York Hospitals, New York City.

DR. WILLIAM H. WALSH,
Secretary,
Philadelphia, Pa.

MR. ASA BACON,
Treasurer,
Superintendent Presbyterian Hospital, Chicago, Ill.

eral hospital that devotes its energies mostly to the care of the poor, but that also takes extraordinarily good care of those able to pay; Miss Jamieson, superintendent of Grant Hospital, Columbus, Ohio, discussed the problem from the standpoint of the strictly private hospital, organized for profit and taking very few free patients.

With a discussion such as this, Sir Henry obtained an intimate knowledge of what variously situated hospitals in this country were doing about paying patients, and his expression on leaving the convention was that he had been amply repaid for the trip across the water and that he would take back for the use of British hospitals very much valuable information. It seems that such work as this should come from the American Hospital Association, and in this instance it came generously.

DR. A. R. WARNER,
First Vice-President,
Superintendent Lakeside Hospital, Cleveland, Ohio.

DR. D. L. RICHARDSON,
Second Vice-President,
Superintendent Providence City Hospital, Providence, R. I.

MISS GEORGIA M. NEVINS,
Third Vice-President,
Superintendent Garfield Memorial Hospital, Washington, D. C.

ON THE SIDE LINES

Usually at conventions, whether they be political or special, there are all sorts of gossip, and generally a good deal of association politics is talked. At Philadelphia the case was almost completely reversed; visitors in their idle hours talked about their hospital problems, about public health activities in their communities, about new work planned by them and for them and about them, and most of those at the meeting thought absolutely nothing and said absolutely nothing about the politics of the association, about the new officers to be elected, or new policies to be inaugurated. There seemed to be no issues that could bring up conflict or the least unpleasantness. There is, of course, always the old feeling by a few lay superintendents that there is discrimination against them on the part of medical superintendents, and vice versa; and there is the ever-existing feeling in some quarters that men superintendents discriminate against women, and there is usually a feeling present at the association meetings that a few superintendents of large hospitals monopolize the discussions and "run things." At Philadelphia this was all reduced to a minimum; lay superintendents and medical men were closer together than ever before, and the medical superintendents recognized that the administration of a hospital was predicated on other things than a knowledge of medicine, and that many lay superintendents were conducting their institutions better than many of those who had medical training. The women easily held their own in the discussions on the floor at the sessions; and the small hospitals, more than ever before, had their inning at the two splendid sessions presided over by Vice-President Miss Nettie B. Jordan, sessions crowded from beginning to end, and brimming over with enthusiasm and brilliant and helpful discussion.

In order to present a more detailed account of the business transactions of the various sessions of the convention, a full report of the secretary's minutes of the meeting is given herewith:

Secretary's Minutes of the Philadelphia Meeting

TUESDAY, SEPTEMBER 26

MORNING SESSION, 10 A. M.

The president called the meeting to order at 10:30 a. m.

Rt. Rev. Philip M. Rhinelander, bishop of Pennsylvania, opened the conference with prayer.

Mr. Edward James Cattell, statistician of the city of Philadelphia, in the absence of the mayor and on his behalf, delivered the address of welcome, to which the president responded. Mr. Daniel D. Test, superintendent Pennsylvania Hospital, Philadelphia, Pa., a charter member of the association, also delivered an address of welcome, to which the president responded.

Asa S. Bacon, treasurer of the association, then assumed the chair. Dr. Winford H. Smith, president, read the president's address. On motion of Dr. J. W. Fowler, superintendent Louisville City Hospital, the meeting provided for the appointment of a committee of three to take under consideration the suggestions in the president's address.

President Smith then resumed the chair and appointed as committee on Time and Place of the Next Convention Dr. Charles A. Drew, superintendent Worcester City Hospital, Worcester, Mass.; Dr. J. W. Fowler, superintendent Louisville City Hospital; and Mr. H. E. Webster, superintendent Royal Victoria Hospital, Montreal, Can.

Mr. Richard P. Borden, trustee of Union Hospital, Fall River, Mass., as chairman, made a report of the Committee on Constitution and By-laws, calling attention *in extenso* to changes proposed, the final consideration of which was, on motion of Mr. Borden, set for an hour (to be determined by the president) on Thursday morning, September 28.

DR. WINFORD H. SMITH,
Trustee (two years),
Superintendent Johns Hopkins Hospital,
Baltimore, Md.

AFTERNOON SESSION, 2 P. M.

The president called the meeting to order at 2:30 p. m.

A photograph of the assembly was taken.

The president appointed Drs. Babcock and Warner and Michael M. Davis, Jr., Ph. D., as a committee of three to consider the recommendations in the president's address, provided for at the morning session.

The president bespoke the members' consideration of the commercial exhibit under the auspices of the local committee.

On motion of Mr. Howell Wright, the chairman of the Committee on Constitution and By-laws was instructed to have printed at the expense of the association, and available by 10 a. m., September 27, 800 copies of the proposed amendments.

In the absence of Miss Ella Phillips Crandall, her report of the Committee on the Training of Nurses was read by Elizabeth A. Greener, superintendent of nurses, Mount Sinai Hospital, New York city.

In the absence of Miss Charlotte Aikens, chairman, Detroit, Mich., her report of Committee on Grading and Classification of Nurses was presented in abstract by Miss Emma A. Anderson.

The symposium on nursing presented in these two reports of subcommittees of the Committee on Hospital Progress was discussed by Dr. Winford H. Smith; Dr. Henry M. Hurd; Sir Henry Burdett, London, Eng.; Dr. J. W. Fowler; Dr. Frederic A. Washburn; Mr. Richard P. Borden; Dr. Thomas Walker, St. John, N. B., Can.; Miss Annie Goodrich; and Miss Emma A. Anderson.

Dr. Frederic A. Washburn moved the adoption of the report of the Committee on Grading and Classification of Nurses, with thanks to said committee, which was carried, by implication carrying the adoption of report of Committee on the Training of Nurses.

Dr. George Walker, chairman of the Maryland Vice Commission, delivered an address on its findings.

Dr. W. L. Babcock, superintendent Grace Hospital, Detroit, Mich., read a paper on "The Open Door Hospital," which was discussed by Dr. J. W. Fowler; Dr. Cleveland Shutt, commissioner of hospitals, St. Louis, Mo.; Dr. Thomas Walker; and Mr. Pliny O. Clark.

In the absence of Dr. Thomas Howell, his report of the Committee on Bureau of Hospital Information was read by Dr. Henry M. Hurd. On motion of Dr. Frederic A. Washburn action on the report was deferred until such time (September 27) as copies of the report could be printed and placed in the hands of the members of the association.

MISS MARY L. KEITH,
Trustee (one year),
Superintendent Rochester General Hospital,
Rochester, N. Y.

EVENING SESSION, 8 P. M.

Symposium on Out-patient Work.

The president called the meeting to order at 8:15 p. m.

Dr. Richard C. Cabot, Boston, Mass., read a paper on "What Dispensary Work Should Stand For," which was discussed by Sir Henry Burdett; Mr. J. Ross Robertson, Toronto, Ontario; and Dr. Daniel D. Test.

Michael M. Davis, Jr., Ph. D., director Boston Dispensary, Boston, Mass., read, as chairman, the report of the special Committee on New Features in Dispensary Work (illustrated), which was discussed by Dr. A. B. Ancker, St. Paul, Minn.; and Dr. Anderson, Raleigh, N. C.; but no formal action was taken. A resolution presented by Dr. Andrew R. Warner, superintendent Lakeside Hospital, Cleveland, O., covering the future of the Out-patient Committee of the American Hospital Association, was, on the initiative of the president, referred to the Committee on Constitution and By-laws.

Miss Olga S. Halsey, assistant secretary American Association for Labor Legislation, read a paper on "Industrial Accident Cases in Dispensaries—Should They Be Accepted?—How Shall the Finance Be Managed?" Discussed by Dr. Daniel D. Test, Dr. Andrew R. Warner, Sir Henry Burdett, and Dr. Michael M. Davis, Jr.

Dr. Wm. F. Snow, secretary American Social Hygiene Association,

read a paper on "Clinics for Venereal Disease—Why We Need Them—How to Develop Them," which was discussed by Dr. George Walker, Baltimore, Md.; Mr. Ransom, Central Free Dispensary, Chicago, Ill.; and Dr. Andrew R. Warner.

WEDNESDAY, SEPTEMBER 27

Morning Session, 10 A. M.

The president called the meeting to order at 10:15 a. m.

Dr. Charles H. Young, superintendent Presbyterian Hospital, New York city, read the report of the Committee on Medical Organization and Medical Education, which was discussed by Dr. J. M. Baldy, Philadelphia Pa.; and Dr. S. S. Goldwater, New York city.

Dr. Renwick R. Ross, superintendent Buffalo General Hospital, Buffalo, N. Y., read the report of the Committee on Development of the Association, which was discussed by Dr. Andrew R. Warner and Mr. Asa Bacon.

On motion of Mr. Bacon, giving effect to a suggestion in that paper, the president was authorized to appoint a committee to make recommendations for bringing the hospitals into the movement for preparedness, and present the recommendations at the next meeting of the association. On motion of Dr. Robert J. Wilson, certain subjects in that paper, properly referable to the Committee on Constitution and By-laws, were so referred.

The report of the Committee on Hospital Construction, by Dr. A. B. Ancker, superintendent City and County Hospital, St. Paul, Minn., was, at his request, read by title.

Dr. Frederick L. Hoffman, chief statistician of the Prudential Life Insurance Company, delivered an address on "The Qualified Statistical Analysis of Hospital Records," and was discussed by Sir Henry Burdett, London, Eng.

Mr. Grosvenor Atterbury, New York city, read a paper on "Hospitals and Esthetics," which was discussed by Dr. H. B. Howard and Mr. Atterbury.

The president directed attention to a stock of copies of the constitution and by-laws, incorporating proposed amendments.

Dr. Elliott P. Joslin, associate professor of Medicine, Harvard University, Cambridge, Mass., read a paper on "The Hospital Dietary," which was discussed by Dr. Thomas McCrae, professor of Medicine, Jefferson Medical School Hospital, Philadelphia, Pa.

Afternoon Session, 2:30 P. M.

The president called the meeting to order at 2:30 p. m.

Dr. Milton C. Winternitz, associate professor of Pathology, Johns Hopkins University, read a paper on "Autopsies—Methods of Obtaining Same and Measures of Protecting the Hospital," which was discussed by Dr. Frederic A. Washburn, Dr. A. B. Ancker, and Dr. Henry M. Hurd.

Dr. Clyde G. Guthrie, associate in medicine, Johns Hopkins University, delivered an address on "The So-called Diphtheria Epidemics in General Hospitals—Preventive Measures," which was discussed by Dr. Renwick Ross; Dr. Thomas Walker, St. John, N. B.; Dr. Robert J. Wilson; Dr. Winford H. Smith; Dr. Milford White, superintendent White Hospital, Ravenna, O.; and Dr. Frederic A. Washburn.

Dr. Robert J. Wilson, superintendent Health Department Hospitals, Willard Parker Hospital, New York city, read a paper on "Disinfection and Other Practicable Methods of Preventing the Spread of Infection in Hospitals," which was discussed by Dr. D. L. Richardson, Providence, R. I.; Dr. A. B. Ancker; Miss Roberta M. West, superintendent of Nurses, Philadelphia Hospital for Contagious Diseases, Philadelphia; Mr. Pliny O. Clark; Dr. Thomas Walker; Miss Eugenia D. Ayers, superintendent Elizabeth General Hospital, Elizabeth, N. J.; Dr. Harry L. F. Locke, superintendent Hartford Isolation Hospital, Hartford, Conn.; and Miss Mary L. Keith, superintendent Rochester General Hospital, Rochester, N. Y.

The president appointed Dr. M. R. Pratt, superintendent Hebrew Hospital, Baltimore, Md.; Mr. J. B. Franklin, superintendent Texas Baptist Memorial Sanitarium, Dallas, Tex.; and Dr. Daniel D. Test, superintendent Pennsylvania Hospital, Philadelphia, Pa., a committee to audit the treasurer's accounts.

A section of the convention hall during one of the sessions.

The president announced that copies of the special report of the Committee on Grading and Classification of Nurses, submitted at Tuesday's afternoon session, could be secured by leaving names with the secretary, a reserve supply being available at the office, in Detroit, Mich., of the chairman, Miss Charlotte A. Aikens.

THURSDAY, SEPTEMBER 28

Morning Session, 10 A. M.

The president called the meeting to order at 10:20 a. m.

Dr. W. L. Babcock, superintendent Grace Hospital, Detroit, Mich., read the report of the Committee to Consider the Recommendations in the president's address, which, on motion of Dr. Cleveland Shutt, was adopted.

Dr. Charles A. Drew, superintendent Worcester City Hospital, Worcester, Mass., read the report of the Committee on Time and Place of Next Meeting, naming Cleveland as the place and the second Tuesday of September, 1917, as the opening date, which was adopted.

Mr. Richard P. Borden, trustee Union Hospital, Fall River, Mass., presented the report of the Committee on Constitution and By-laws

Some of the Noncommercial Exhibits at the Convention of the American Hospital Association

Exhibit showing children's hospital crib, devised by Dr. W. H. Walsh; (on bed) nurses' uniforms used in the Delaware Hospital, Wilmington; (center) first coil used for practical x-ray work in Philadelphia and exhibited by the German Hospital, Philadelphia; (extreme right) crib and nursery equipment used at St. Christopher's Hospital, Philadelphia; on floor (left to right), treatment basket, designer unknown; miniature of clinic at Woman's Medical College, Philadelphia.

Exhibit of University of Pennsylvania (medical division), showing charts, forms, and patent lifting devices. Dolls show styles of uniforms worn.

Exhibit of Episcopal Hospital, Philadelphia, showing splints made by the hospital's own carpenter and machine shops, and several views and articles used in the hospital.

Exhibit showing (left to right) electrically heated bed for marasmic babies, designed by the Woman's Hospital, Philadelphia; crib and nurse's uniform used in the Buhl Hospital, Sharon, Pa., private room tray service used by the Jefferson Hospital, Philadelphia. Below (left to right) is shown milk refrigerator and an incubator used and designed by the Woman's Hospital, Philadelphia.

substantially as submitted at Tuesday's session, with certain minor suggestions as amendments drawn from papers, including the president's address read at this conference, and from the members, some of whom had met with the committee. As participants in the discussion of the constitution and by-laws, leading up to adoption in final form, were, besides Mr. Borden, chairman of the committee, Mr. Howell Wright, Cleveland, O.; Dr. S. S. Goldwater; Dr. Frederic A. Washburn; Dr. Daniel D. Test; Dr. Thomas Walker; Dr. Charles A. Drew; and Dr. Henry M. Hurd.

On motion of Dr. W. L. Babcock, the nominating committee was instructed to present, in its report on Friday, nominations of three trustees, in accordance with the newly adopted constitution and by-laws.

On behalf of the Committee on Bureau of Hospital Information, whose report was read at a previous session of this conference, Dr. Frederic A. Washburn moved its adoption, that the trustees of the association be authorized to employ a paid permanent secretary, and that it is the hope of the association that its officers may be engaged and headquarters be established which will serve as a bureau of information not later than July 1, 1917. Dr. S. S. Goldwater stated that the constitution provided that "the secretary shall be elected annually by a vote of the association," and moved to amend by striking out the word "permanent." The amendment was accepted by the mover of the original motion, which, thus amended, prevailed.

Dr. Renwick Ross, in line with the recommendation in the report of the Committee on Development of the Association at Wednesday's session, moved that THE MODERN HOSPITAL be the official organ of the association, and that so long as it is so regarded it be subject to the censorship of the board of trustees of the association. In the discussion ensuing the participants were Mr. O. H. Bartine; Dr. Walter Morritt; Miss Charlotte A. Aikens; Mr. Howell Wright; Dr. James Alderson; Dr. H. B. Howard; Mr. John R. Howard, Jr.; Dr. Daniel D. Test; Miss Ella C. Ingwerson, superintendent La Crosse Hospital, La Crosse, Wis.; Sir Henry Burdett; Mr. Richard P. Borden; and Dr. Charles A. Drew. The matter was referred to the board of trustees for consideration and for report to the next convention.

Registration booth of the convention showing general form of decorations of the exhibits.

Dr. Thomas B. Hartzell, University Hospital, Minneapolis, Minn., read a paper on "Dental Clinics in General Hospitals" (illustrated).

AFTERNOON SESSION, 2 P. M.

The president called the meeting to order at 2:50 p. m.

Mr. O. H. Bartine, superintendent Hospital for Ruptured and Crippled, New York city, read a paper on "The Building of the Hospital—Departments and Rooms," a discussion of which was read by Dr. A. C. Bachmeyer, superintendent Cincinnati General Hospital, Cincinnati, O. Other participants were Dr. S. S. Goldwater; Mr. C. S. Loder, New York city; Dr. J. W. Fowler; Mr. J. H. S. Parke, Montreal; Sir Henry Burdett; and Dr. A. B. Ancker.

Dr. John G. Bowman, director American College of Surgeons, read a paper on "Hospital Standardization," which was discussed by Dr. H. B. Howard, Dr. Cleveland Shutt, and Dr. Andrew R. Warner. On motion of Dr. Shutt, amended by Dr. Howard, and with their consent modified (as to source of appointment) by the president, the board of trustees was directed to appoint a committee of three, whereof President Smith shall be chairman, to confer with a committee representing the American College of Surgeons as to the best means of furthering the work of that body.

Dr. Frederic Brush, superintendent Burke Foundation, White Plains, N. Y., read a paper on "Convalescent Hospitals—Methods—Results," which was discussed by Sir Henry Burdett; Dr. H. B. Howard; Dr. E. E. Holt, Portland, Me.; Dr. S. S. Goldwater; and Mr. Ransom, Chicago, Ill.

EVENING SESSION, 8 P. M.

Round Table Session for Large Hospitals—Conducted by Dr. John A. Hornsby, Editor THE MODERN HOSPITAL.

Dr. John A. Hornsby, chairman, called the meeting to order at 8:30 p. m.

Dr. Charles A. Drew, superintendent Worcester City Hospital, Worcester, Mass., read a paper on "Stumbling-blocks to Team-work," which was discussed by Dr. J. W. Fowler, Dr. Winford H. Smith, Dr. Daniel D. Test, and Dr. A. B. Ancker.

At the chairman's request, Sir Henry Burdett spoke to the question of the principles of paying patients, introducing his remarks with a dissertation on England's endeavor toward preparedness for speedy and efficient hospital care of her wounded soldiery in the war now raging. The participants in the discussion ensuing were Dr. Henry M. Hurd; Dr. A. B. Ancker; Dr. Andrew R. Warner; Miss Mary A. Jamieson, superintendent Grant Hospital, Columbus, O.; Mr. James V. Norris, superintendent New York Polyclinic Hospital, New York city; Miss Laura E. Coleman, superintendent Homeopathic Hospital, Buffalo, N. Y.; and Dr. Rowland B. Harris.

At the chairman's request, Dr. C. Irving Fisher, New York city, gave a familiar talk on the relations that should exist between the superintendent, the board of trustees, and the medical staff of the hospital.

The remainder of the time was devoted to propounding questions previously submitted in writing, as to the majority, and answering them.

FRIDAY, SEPTEMBER 29

MORNING SESSION, 10 A. M.

The president called the meeting to order at 10:20 a. m.

In the absence of Dr. H. T. Summersgill, superintendent University of California Hospital, San Francisco, Cal., his report of the Committee on Legislation of the American Hospital Association was read by the secretary. On motion of Dr. J. W. Fowler, amended with his consent by the president, it was referred to the board of trustees for their information.

The report of the Committee on Membership, read by the secretary, was as follows: membership in the American Hospital Association June 15, 1,185; reinstated during the year, 18; new members, 309; making a total of 327. Active members, 939; associate members, 232; honorary members, 14; making a total membership at present of 1,185 members. New members were added from forty-two states, and indorsed by 106 members of the association. On motion the report was accepted.

Dr. John A. Hornsby, Chicago, Ill., editor of THE MODERN HOSPITAL, made a report of the Committee on Hospital Standardization, which, on motion of Dr. Henry M. Hurd, was accepted and the committee discharged.

On motion of Dr. Henry M. Hurd, the trustees were instructed to appoint a committee on necrology, to report each year the names of deceased members, and such sketches of them as in the judgment of the committee may seem proper.

Dr. M. R. Pratt read the treasurer's report, which, on motion, was received and referred to the Auditing Committee.

Dr. Andrew R. Warner, superintendent Lakeside Hospital, Cleveland, O., read the report of the Committee on Hospital Finances and Cost Accounting, carrying with it the following resolution:

Resolved, that a special committee of three on hospital accounting be appointed by the president, to serve until discharged by the association. The committee shall, from time to time, propose such recom-

mendations leading to more uniform and comprehensive accounting as it shall deem advisable. The recommendations and the report of this committee shall be considered by the association, and, if the recommendations are adopted, an effort to cause their use in hospitals represented in this association shall be made by members of this association representing such hospitals.

Mr. Pliny O. Clark moved the adoption of the report with the resolution, which prevailed.

Dr. S. S. Goldwater read a paper on "The Hospital and the Surgeon," which was not discussed, owing to the lateness of the hour and the absence of Dr. John G. Clarke, professor of gynecology, University of Pennsylvania, scheduled to open the discussion.

Dr. Mason R. Pratt, superintendent Hebrew Hospital, Baltimore, Md., read the report of the Auditing Committee, consisting of Dr. Mason R. Pratt and Dr. Daniel D. Test, which, on motion, was received.

Dr. George O'Hanlon, superintendent Bellevue and Allied Hospitals, New York city, read the report of the Committee on Efficiency and Progress, which, on motion, was accepted. No discussion.

In the absence of both Dr. Renwick R. Ross and Dr. H. B. Howard, and at the president's request, Dr. W. L. Babcock read the following report of the nominating committee:

The following nominations have been made by the nominating committee: for president, Dr. Robert J. Wilson, superintendent of hospitals, New York Department of Health; first vice-president, Dr. A. R. Warner, superintendent Lakeside Hospital, Cleveland; second vice-president, Dr. D. L. Richardson, superintendent City Hospital, Providence, R. I.; third vice-president, Miss Georgia M. Nevins, superintendent Garfield Memorial Hospital, Washington, D. C.; secretary, Dr. Wm. H. Walsh, Philadelphia, Pa.; treasurer, Mr. Asa S. Bacon, superintendent Presbyterian Hospital, Chicago. For trustees: for the term of three years, Mr. Richard P. Borden, president board of trustees of Union Hospital, Fall River, Mass.; for the term of two years, Dr. Winford H. Smith, superintendent Johns Hopkins Hospital, Baltimore; for the term of one year, Miss Mary L. Keith, superintendent Rochester General Hospital, Rochester, N. Y.

On motion of Dr. S. S. Goldwater the report was accepted and the secretary was instructed to cast the ballot in favor of the nominees named, and the president declared them elected to the respective offices. At the request of the retiring president, Dr. Robert J. Wilson, New York city, president-elect, was escorted to the chair, both officers making appropriate remarks.

Mr. Richard P. Borden, trustee Union Hospital, Fall River, Mass., moved a vote of thanks to the mayor of Philadelphia and to Dr. Wm. H. Walsh, chairman of the Committee on Local Arrangements, for services and hospitalities rendered to the association, the motion prevailing.

Dr. Daniel D. Test, on behalf of Dr. Walsh, chairman of the local committee, and at the latter's request, expressed deep appreciation of the benefits conferred by the guests on the hosts, and stated that never before had there been such cooperation between the hospitals of Philadelphia or so much constructive work done by them in the same length of time. Dr. Test eulogized Dr. Mohler, of the Entertainment Committee; Dr. Page, of the Transportation Committee; Miss Sutton, of the Publication Committee; and Dr. Seabrook, of the Committee on Noncommercial Exhibits; but, above all, the chairman of the local committee, for the fulfillment of his functions in general, and in particular for his untiring efforts in producing a splendid commercial exhibit, with attending financial success.

Dr. Test, furthermore, moved a vote of thanks and appreciation to Dr. Winford H. Smith, retiring president, for the splendid program and the courteous conduct of the business of the conference; Dr. Andrew R. Warner, Cleveland, O.; and Dr. John A. Hornsby, Chicago, Ill., seconded it; Sir Henry Burdett indulged in reminiscence and in aspirations for the association's future. The president put the motion, with interpolation of thanks to the retiring officers, which prevailed, and the president declared the American Hospital Association adjourned until the second Tuesday of September, 1917, to meet in Cleveland, Ohio.

Important Announcements by the Secretary

BY DR. WILLIAM H. WALSH.

Headquarters for the association will be established as soon as possible in the Medical Arts Building, and in the interim temporary offices will be opened in the Baxter Building, 1414 South Penn Square, Philadelphia. This temporary arrangement is made necessary by the present unfinished condition of the new building.

The secretary desires to announce that members of the association who were unable to attend the convention may receive the booklet and badge on request. It will be necessary to send also 4 cents in stamps to pay postage. The officers of the association regard the badge as particularly unique and appropriate, and it was so greatly admired that they believe many of the members will want one.

The secretary also desires to announce that annual reports of all hospitals in the United States and Canada are desired by the association, and reports should be of 1916. Each member is requested, in addition to sending in his own report, to see that reports of neighboring hospitals whose officers are not members are sent in.

Those Who Registered at the American Hospital Association Meeting

A great many visitors to the Philadelphia Convention, both members and guests, and traveling friends of members, neglected to register with the secretary and treasurer of the association, but the following is a list of the members who actually registered:

Adams, Ada F.....Nassau Hosp. Assn., Mineola, L. I.
Alderson, James.....Finley Hosp., Dubuque, Iowa.
Aldridge, Edith B.....National Homeo. Hosp., Washington, D. C.
Alexander, Dr. A. B.....Municipal Hosp., Winnipeg, Man.
Alexander, Dr. Jas. R.....Presbyterian Hosp., Charlotte, N. C.
Allen, Bertha W.....Lowell Gen. Hosp., Lowell, Mass.
Allyn, Harriet J.....Griffin Hosp., Derby, Conn.
Altschul, David S.....New York City.
Allison, Emily C.....Pontiac City Hosp., Pontiac, Mich.
Ancker, Arthur B.....City and County Hosp., St. Paul, Minn.
Ancker, Elizabeth W.....Pilcher Private Hosp., Brooklyn, N. Y.
Anderson, Albert.....State Hosp., Raleigh, N. C.
Anderson, Emma A.....N. E. Baptist Hosp., Boston, Mass.
Appel, Mrs. Katherine.....Howard Hosp., Philadelphia, Pa.
Ayer, Miss Elizabeth D.....Elizabeth Gen. Hosp., Elizabeth, N. J.

Babcock, Dr. W. L.....Grace Hospital, Detroit, Mich.
Bachmeyer, Dr. A. C.....Cincinnati Gen. Hosp., Cincinnati, Ohio.
Bacon, Asa.....Presbyterian Hosp., Chicago, Ill.
Bacon, Dr. Chas. Bowman..City Hosp., Blackwell Island, New York City.
Bailey, George.....Cooper Hosp., Camden, N. J.
Bailey, Minnie.....Prince of Peace Hosp., Philadelphia, Pa.
Baker, Henry R.....Brooklyn Eye and Ear Hosp., Brooklyn, N. Y.
Ball, Dr. Otho F.....THE MODERN HOSPITAL, St. Louis, Mo.
Barnaby, Marietta D.....Henry Heywood Mem. Hosp., Gardner, Mass.
Barnes, Sydney J.....Orange Mem. Hosp., Orange, N. J.
Barrett, Ida M.....Blodgett Mem. Hosp., Grand Rapids, Mich.
Bartine, Oliver H.....New York Society for Relief of the Ruptured and Crippled, New York City.
Bates, F. O.....Roper Hosp., Charleston, S. C.
Bates, W. Lincoln.....Dr. Bates Sanatorium Co., Jamestown, R. I.
Bauernfeind, J. H.....Evangelical Deaconess Hosp., Chicago, Ill.
Baur, Dr. Charles E.....Barnes Hosp., St. Louis, Mo.
Baxter, D. E.....THE MODERN HOSPITAL, New York City.
Becker, Ray.....THE MODERN HOSPITAL, Chicago, Ill.
Beers, Mollie.....Cambria Steel Hosp., Johnstown, Pa.
Benjamin, Sister M.....St. Francis Hosp., Trenton, N. J.
Bigelow, Wilbur B.....Salem Hosp., Salem, Mass.
Bigger, James H.....Western Penna. Hosp., Pittsburg, Pa.
Bishop, Howard E.....Robert Packer Hosp., Sayre, Pa.
Blanchfield, Florence A.....Suburban Gen. Hosp., Bellevue, Pa.
Borden, Richard P.....Union Hosp., Fall River, Mass.
Bosworth, Dr. Robinson....Advisory Commission of Minnesota State Sanatorium, St. Paul, Minn.
Bowen, Sara A.....Springfield Hosp., Springfield, Mass.
Bremer, L.....Columbia Hosp., Columbia, S. C.
Brian, Celia E.....Danville Gen. Hosp., Danville, Va.
Briggs, John R.....Pottstown Hosp., Pottstown, Pa.
Brooks, Winifred H.....Wesson Mat. Hosp., Springfield, Mass.
Browne, Miss E. M.....Douglass Hosp., Philadelphia, Pa.
Brush, Edward N.....Sheppard and Enoch Pratt Hosp., Baltimore, Md.
Brush, Dr. Frederic.....Burke Foundation, White Plains, N. Y.
Buckenham, Dr. J. E. B.....Philadelphia Hosp., for Contagious Diseases, Philadelphia, Pa.
Bunn, F. S.....Youngstown Hosp., Youngstown, Ohio.
Burby, Nelly R. .....Richmond Hill, L. I.
Burdett, Sir Henry.....The Lodge, London, Eng.
Burgan, John L.....State Hosp., Scranton, Pa.
Burns, Miss Sara.....New York Skin and Cancer Hosp., New York City.
Buse, Alice E.....Corry Hosp. Assn., Corry, Pa.
Butterfield, Caroline L.....Martin's Ferry Hosp., Martin's Ferry, Ohio.
Byrne, Teresa A.....Goshen Emergency Hosp., Goshen, N. Y.

Caldwell, Dr. Bert W.....Allegheny Gen. Hosp., Pittsburg, Pa.
Callender, Eliza B.....Bradford Hosp., Bradford, Pa.
Cameron, Florence.....Beaver Valley Gen. Hosp., New Brighton
Camp, Dr. F. K. .....Wesley Hosp., Oklahoma City, Okla.
Carmelika, Sister M.....Mercy Hosp., Baltimore, Md.
Carmichael, Dr. F. A.....Osawatomie State Hosp., Osawatomie, Kans.
Caroline, Sister.....Children's Hosp., Boston, Mass.
Carson, Lillian H. S.....Pilcher Hosp., Brooklyn, N. Y.
Case, Clara B.....Medford Sanatorium for Working People, Medford, L. I.
Cushman, Alice C. S.....Beverly Hosp., Beverly, Mass.
Chambers, Mrs. L. A.....Geneva City Hosp., Geneva, N. Y.
Chapman, Frank E.....Mt. Sinai Hosp., Cleveland, Ohio.
Chappell, Frances.....St. Luke's Hosp., St. Louis, Mo.
Christianson, A. Jeanette...Northwestern Hosp. Minneapolis, Minn.
Clapp, Edith J. L.....Englewood Hosp. Assn., Englewood, N. J.

Clark, Dr. C. K.....Toronto Gen. Hosp., Toronto, Can.
Clark, Raymond.....Greenpoint Hosp., Brooklyn, N. Y.
Clarke, Mary A.....White Haven Sanatorium, Newark, N. J.
Clarke, P. O.....Ohio Valley Gen. Hosp., Wheeling, W. Va.
Cleland, Alice C.....Cooley Dickinson Hosp., Northampton, Mass.
Coleman, Laura E.....Buffalo Homeopathic Hosp., Buffalo, N. Y.
Coleman, Louise W.....House of the Good Samaritan, Boston, Mass.
Collins, Herbert O.....City Hosp., Minneapolis, Minn.
Conley, Walter H.....Metropolitan Hosp., New York City
Conner, Miss Mabel.....Northern Pacific Hosp., Tacoma, Wash.
Cook, Melissa J.....Melrose Hosp. Assn., Melrose, Mass.
Coon, Dr. J. W.....Pen Bryn Sanatorium, Pewaukie, Wis.
Cowie, Edith M.....Bronson Hosp., Kalamazoo, Mich.
Cox, Edith I.....Faulkner Hosp., Boston, Mass.
Cratty, John M.....Presbyterian Hosp., Philadelphia, Pa.
Crew, E. R.....Miami Valley Hosp., Dayton, Ohio.
Crow, Wm. D.....St. Barnabas Hosp., Newark, N. J.
Croughan, Patrick J.....Paterson Isolation Hosp., Paterson, N. J.
Cumming, Margaret M.....C. H. Buhl, Sharon, Pa.
Curry, Margaret J.....Lakeside Hosp., Chicago, Ill.

Darlington, Miss Laura S....Johnston Willis Hosp., Richmond, Va.
Darrach, Chas. Gobrecht....Honorary member, Philadelphia, Pa.
Davidson, S. G.....Babies' Hosp. of Philadelphia, Philadelphia, Pa.
Davies, Miss Eliza.....J. C. Blair Mem. Hosp., Huntingdon, Pa.
Davis, E. Mildred.....Knickerbocker Hosp., New York City.
Davis, Michael M.....Boston Dispensary, Boston, Mass.
Davison, Nina P.....Chambersburg Hosp., Chambersburg, Pa.
Deaver, Mary Florence.....The Christ Hosp., Cincinnati, Ohio.
Deetting, Katharine R.....Franklin Square Hosp., Baltimore, Md.
Denton, Miss Emily.....General Hosp., Saranac Lake, N. Y.
Donenwirth, Emma.....People's Hosp., Akron, Ohio.
Donet, E. D.....Memorial Hosp., Mt. Pleasant, Pa.
Dorr, Wm. R.....St. Luke's Hosp., San Francisco, Cal.
Dougherty, Fannie A.....Cottage State Hosp., Philipsburg, Pa.
Dougherty, John E.....Greenpoint Hosp., Brooklyn, N. Y.
Dowling, D. G.....Utica Homeopathic Hosp., Utica, N. Y.
Dretzka, Dr. L. J.....Detroit Receiving Hosp., Detroit, Mich.
Drew, Chas. A.....Worcester City Hosp., Worcester, Mass.
Duncan, Jennette F.....Delaware Hosp., Wilmington, Del.
Dundas, Ethel B.....Rochester Gen. Hosp., Rochester, Pa.

Earle, Jr., Mrs. George H.....Woman's Hosp., Philadelphia, Pa.
Eden, Marie Close.....Columbia Hosp., Wilkinsburg, Pa.
Eitel, Mrs. Geo. G.....The Eitel Hosp., Minneapolis, Minn.
Ellicott, Nancy P.....Rockefeller Institute Hosp., New York City.
Emma, Sister.....Hospital of St. Barnabas, Newark, N. J.
Essig, Anna K.....Coatesville Hosp., Coatesville, Pa.
Etheldreda, Sister M.....Mercy Hosp., Pittsburg, Pa.
Ewin, Miss H. Jane.....Free Hospital for Women, Brookline, Mass.

Fahlberg, Anna K.....Williamsburg Hosp., Williamsburg, N. Y.
Fay, John E.....Hartford Hosp., Hartford, Conn.
Fellows, Mabel C.....City Hosp., Washington, Pa.
Fisher, C. Irving.....Presbyterian Hosp., New York City.
Fleming, Blanche K.....Grove City Hosp., Grove City, Pa.
Fletcher, Mabel.....Hudson City Hosp., Hudson, N. Y.
Fogg, Mrs. Anna L.....Woman's Hosp., Philadelphia, Pa.
Foley, L. G.....968 Linwood Place, St. Paul, Minn.
Ford, Mrs. A. Louise.....Children's Hosp., Pittsburg, Pa.
Fost, Estelle V.....Uniontown Hosp., Uniontown, Pa.
Foukalsrud, A. O.....Norwegian Hosp., Brooklyn, N. Y.
Fowler, Benj. M.....Vassar Bros. Hosp., Poughkeepsie, N. Y.
Fowler, J. W.....Louisville City Hosp., Louisville, Ky.
Fox, L. Webster.....Medico-Chi. Hosp., Philadelphia, Pa.
Fox, Rena P. .....The Babies' Hosp., of Philadelphia, Philadelphia, Pa.
Fraser, Jean C.....Vincent Mem. Hosp., Boston, Mass.
Frauenthal, Henry H.....Hosp. for Deformities and Joint Diseases, New York City.
Freidinger, Stella M.....John C. Proctor Hosp., Peoria, Ill.
Friedman, Nina Dale.....German Hosp., Chicago, Ill.
Frost, Mabel E.....Jackson City Hosp., Jackson, Mich.
Fulgentia, Sister M.....St. Mary's Hosp., Philadelphia, Pa.
Fuller, David H.....Municipal Hosp., Fall River, Mass.

Gable, Mary N.....Chambersburg Hosp., Chambersburg, Pa.
Gaggs, Alice Muriel.....Norton Mem. Infirmary Louisville, Ky.
Gailey, Ida M.....Conemaugh Valley Mem. Hosp. Johnstown, Pa.
Gainor, Elizabeth M.....Washington Hosp., Washington, Pa.
Gallery, Elizabeth A.....Reading Hosp., Reading, Pa.
Garrett, Anna C.....Frankford Hosp., Philadelphia, Pa.
Garrison, Charlotte J.....City Hosp. Sanatorium, Kalamazoo, Mich.
Gartshore, Leut.-Col. W. M..Victoria Hosp., London, Can.
Gary, I. Clock.....People's Hosp., Chicago, Ill.
Geffen, Joseph.....Mt. Sinai Hosp., Philadelphia, Pa.
Genevieve, Sister M.....St. Elizabeth's Hosp., Youngstown, Ohio.
Georgina, Sister M.....St. Agnes Hosp., Philadelphia, Pa.
Geraldine, Sister M.....St. Elizabeth's Hosp., Youngstown, Ohio.
Gibson, Gertrude M.....Prospect Heights Hosp., Brooklyn, N. Y.
Giffen, Elizabeth C.....Bethesda Hosp., Zanesville, Ohio.
Gill, Chas. A.....Germantown Hosp., Germantown, Pa.
Golder, Miss Louise.....Bethesda Hosp., Cincinnati, Ohio.
Goldwater, Dr. S. S.....Mt. Sinai Hosp., New York City.
Goodwin, Dr. H. C.....Albany Hosp., Albany, N. Y.
Graham, Mabel.....Christ Hosp., Jersey City, N. J.
Graham, W. T.....University Hosp., Iowa City, Iowa.
Grant, Janet A.....Moses Taylor Hosp., Scranton, Pa.
Gray, Mabel F.....Winnipeg Gen. Hosp., Winnipeg, Can.
Greene, Frederick D.....United Hosp. Fund of New York, New York City.
Greener, Elizabeth A.....Mt. Sinai Hosp., New York City.
Griffin, Rev. M. Y.....St. Elizabeth's Hosp., Youngstown, Ohio.
Groyer, Dr. Frederick.....Lincoln Hosp. and Home, New York City.
Gunther, Leopoldine.....Greenpoint Hosp., Brooklyn, N. Y.
Gustafson, Dr. Olga F.....American Hosp., Chicago, Ill.
Gutwald, Kathrun.....Mercy Hosp., Columbus, Ohio.

Hamilton, Alfreda M.....Protestant Hosp. Assn., Columbus, Ohio.
Hamilton, Stewart.....Harper Hosp., Detroit, Mich.
Happersett, Miss C.....Lock Haven Hosp., Lock Haven, Pa.
Harper, Mrs. W. D.....Monmouth Mem. Hosp., Long Branch, N. J.
Harris, Betsy L.....Children's Hosp., Detroit, Mich.
Harris, Rowland H.....Battle Creek Sanatorium, Battle Creek, Mich.
Hartry, Miss Harriett.....St. Barnabee Hosp., Minneapolis, Minn.
Hatfield, Elizabeth L.....Bayonne Hosp. and Disp., Bayonne, N. J.
Hawke, W. W.....Eyric Sanatorium, Clifton Heights, Pa.
Haworth, E. P.....Willows and Grace Hosps., Kansas City, Mo.
Hayden, Mrs. Sarah.....Augusta Gen. Hosp., Augusta, Mo.
Hayes, Mary A.....U. of P. Hosp., Philadelphia, Pa.
Hays, Dr. M. J.....Kane Summit Hosp., Kane, Pa.
Heil, Martha J.....Jane McAlister Hosp., Waukegan, Ill.
Hemingway, Alice N.....Aultman Hosp., Canton, Ohio.
Henning, Emma M.....Jersey City Hosp., Jersey City, N. J.
Herlihy, Miss Margaret.....Brooklyn E. D. Disp. and Hosp., Brooklyn.
Higgins, Winifred A.....Ithaca City Hosp., Ithaca, N. Y.
Hildegarde, Sister M. M.....Misericordia Hosp., West Philadelphia, Pa.
Hildreth, Chas. B.....St. Luke's Hosp., Cleveland, Ohio.
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Hill, Miss M. Y.....West Side Hosp. Assn., Scranton, Pa.
Hill, R. C.....N. Y. State Soldiers and Sailors' Home Hosp., Bath, N. Y.
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Hollopiter, Clio.....Robert Packer Hosp., Sayre, Pa.
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Holmes, Susan.....Abbott Hosp., Minneapolis, Minn.
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Howard, John R.....N. Y. Orthopoedic Hosp., New York City.
Howerstod, Rev. T. T.....United Church Hosp. Assn., Minneapolis, Minn.
Humphreys, Ethel J.....J. Lewis Crozer Hosp., Chester, Pa.
Hunt, Miss Alice M.....Truesdale Hosp., Fall River, Mass.
Hunter, Miss J. Alison.....Grace Hosp., New Haven, Conn.
Hurd, Dr. Henry M.....Johns Hopkins Hosp., Baltimore, Md.
Hyslop, Blanche.....Goddard Hosp., Brockton, Mass.

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Jackson, Mary C.....W. C. Graham Protestant Hosp., Keokuk, Ia.
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Jamison, Celeste.....Rush Hosp., Philadelphia, Pa.
Jeffrey, Annie T.....St. Christopher's Hosp., Philadelphia, Pa.
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Jones, John W.....Sheppard and Enoch Pratt Hosp., Baltimore, Md.
Jones, Miss L. V.....St. Luke's Hosp., Newburgh, N. Y.
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Justis, Miss L. J.....Brokaw Hosp., Normal, Ill.

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Kelley, E. A.....Highsmith Hosp., Fayetteville, N. C.
Kelley, Maude M.....Washington City Hosp., Washington, Pa.
Kelly, Miss Bree S.....Eleanor Moore Hosp., Boone, Iowa.
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Kendall, Sarah D.....Memorial Hosp., Athol, Mass.
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Shutt, Dr. Cleveland H.....City Hosp., St. Louis, Mo.
Simonton, Eva.....St. Timothy's Hosp., Philadelphia, Pa.
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Smith, Mrs. Charles A.....New Rochelle Hosp., New Rochelle, N. Y.
Smith, Edward P.....Mercy Hosp., Baltimore, Md.
Smith, J. M.....Muehlenberg Hosp., Plainfield, N. J.
Smith, Marion E.....University Hosp., Philadelphia, Pa.
Smith, Mary A.....York Hosp., York, Pa.
Smith, Nina A.....Mary Fletcher Hosp., Burlington, Vt.
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Sona, Marie.....Easton Hosp., Easton, Pa.
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Southworth, Harriet.....Levering Hosp., Hannibal, Mo.
Spalding, Harry O.....Westboro State Hosp., Westboro, Mass.
Stevens, Andrew F.....Douglass Hosp., Philadelphia, Pa.
Stevens, Edward F.....N. E. Deaconess Hosp., Baston Mass.
Stewart, Annabel L.....Women's Homeo. Hosp., Philadelphia, Pa.
Stewart, Helen T.....St. Christopher's Hosp., Brooklyn, N. Y.
Stewart, Minnie O.....Home for Destitute Crippled Children, Chicago, Ill.
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Strasser, C. Eugene.....Jewish Hosp., Brooklyn, N. Y.
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Turpin, Miss Mary B.....Columbia, S. C.

Ubil, Miss S. Katharine.....Lewis Crozer Home for Incurables, Chester, Pa.
Underhill, Samuel G.....Lynn Hosp., Lynn, Mass.

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Walker, Dr. E. F.....Providence Lying-In Hosp., Providence, R. I.
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Warfield, Harry H.....University of Maryland Hosp., Baltimore, Md.

Warner, Dr. A. R.	Lakeside Hosp., Cleveland, Ohio.
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Weglener, W. J.	
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Weissinger, Louise M.	Jewish Hosp. Assn., Louisville, Ky.
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White, Marchant B.	Riverdale Isolation Hosp., Toronto, Can.
White, Milford W.	White Hosp., Ravenna, Ohio.
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Wilson, Margaret S.	Orthopedic Hosp., Philadelphia, Pa.
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Wright, Howell	Cleveland Hospital Council, Cleveland, O.
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Yingst, Edith E.	Carlisle Hosp., Carlisle, Pa.
Young, Beverly	Southwestern Insane Asylum, San Antonio, Tex.
Young, Charles H.	Presbyterian Hosp., New York City.
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Dr. Ross' Report—Development of the Association[1]

BY DR. R. R. ROSS, Chairman of the Committee.

As chairman of the Committee on the Development of the Association, I have the honor of reading its report of how to make this body of men and women more useful to itself. It is the very task that your presidents, officers, and committees have been trying to solve for the last fifteen years. To be frank with you, it is not so easy as it seems. To make an improvement is an impossible thing to do unless the members want an improvement and each is willing to do the part assigned him. Members have been too willing to sit and listen, or to even just sit, and let others do the work. Grover Cleveland was once complimented on what was supposed to be an extemporaneous after-dinner speech; but, said Mr. Cleveland, "There was nothing extemporaneous about it. I spent several evenings preparing that speech." Each one can, by burning the candle a little lower, contribute something worthy of his efforts and of interest to the association. There has been a too willing spirit to receive and a too great reluctance to give.

We come from localities widely scattered. Our problems, our difficulties, and our associations are widely different. We can at least unite on fundamentals. Each one must work out the details to meet his own needs and conditions. We do not believe that it is possible to determine every detail of hospital work and formulate a definite rule or plan for it. Were it so, the individual initiative would be destroyed and we would cease to be creative men and women. During the time we have been established as an association much has been accomplished—many an inspiration given to the beginner and to those on whom the burden of their work has heavily borne.

The functions of a modern hospital have greatly multiplied in the past fifteen years. New departments have come into existence which were then unknown. To help us meet these new conditions, and to determine how best to utilize them, should be one of the aims of these meetings. For the past few years there has been a splitting up of the association into smaller units. Canada has organized her own association, which is on a flourishing basis. The sisters' hospitals throughout the states have formed their organization. Members from various states have found it to their advantage to organize their own state bodies. The result of all this has been a lessening of the interest in the parent organization and a falling off in the attendance at its meetings. Let us be honest with ourselves, and try to see what this means. Has the formation of these various organizations anything to suggest to us? The members from the far West find it difficult, expensive, and often impossible to attend meetings held in the eastern states and Canada. Members from Canada and the East meet the same difficulties when the association holds its meetings in the western states. The result has been and is detrimental to the parent organization, if we are to judge of the success of each meeting by the members present. This same feature has been observed in the American Medical Association and other national or international organizations. A comparatively few receive the benefits in any one year.

We do not believe that the state associations are a move in the right direction. There is no good reason why there should be a division along state lines. In some states it is impossible to form or maintain a state organization, while in others a flourishing association can be maintained. To meet the objection of distance and to bring those of allied interests together, we beg to bring to your attention the possibility of forming subsidiary organizations which shall represent different sections of the country; these associations to be so grouped by states that their problems, their interests, and ambitions be as nearly alike as possible; these to hold their yearly meetings, and the year that the national association meets in any given section, that sectional meeting be omitted.

Something more should be done to interest the public in the work of hospitals. In paternalistic countries and for municipal and state institutions this is not so important; hospital support in these is assured without much thought of the individual interest of a community. The ideal thing would be to have our own publication, but until such time comes we think it wise to have some journal which we can regard in an official way. We, therefore, recommend that some journal be recognized as the official journal of the association.

For some years we have discussed the advisability of establishing a paid secretaryship. We recognize that to finance such a position has been the difficulty. We have, however, made about all the improvement we can expect to make until some determined effort is made along this line. In similar organizations the work is largely done by a secretary. There is a very definite limit to the work we can place on a voluntary or part-time paid officer. The secretary should be a physician, and young enough to feel that he has a thing to develop. On him should rest the responsibility of coordinating the work of the different branches previously recommended. He should be able to bring our association in closer touch with the various other public health associations, such as the American Medical Association, the American Association of Nursing, the Red Cross work, the National Association for the Control of Tuberculosis, and other organizations with which hospital workers should be familiar and with which they should be in touch. There is a vast fund of information unavailable for us at the present time because there is no proper classification. Something should be done so that we may have benefit of the results of the various hospital meetings and public health meetings other than our own. We know of no better plan than to have state cor-

[1]Read before the eighteenth annual conference of the American Hospital Association, Philadelphia, September 26-29, 1916.

responding secretaries or section secretaries, whose duties it would be to keep the national secretary posted on all hospital matters, including plans for new buildings, etc., and to furnish such information as may be called for by the secretary. The hospital purchasing bureau would be of little use to its members without its secretary. We confidently believe that equal benefits would accrue to us with the proper officer at work. A canvass for membership could be more thoroughly instituted under his direction than we can expect from an unpaid officer.

We have done little other than hold these meetings for the benefit of the members of the association or for the hospitals represented. There is much of value which can be done. We should have an exchange or bureau consisting of a registry of every hospital in Canada and the United States; of the superintendents and assistant superintendents; of the superintendents of nurses and their assistants; of the matrons, the dietitians, the x-ray operators, etc., and know something of the reputation of each and the character of work they are doing. The bureau should know when vacancies occur in the positions held by these, and have a record of those capable and available to fill them. Were such a bureau established and properly conducted, it would be of great value to those hospitals seeking officers and to those seeking positions, and, we believe, produce a substantial income for the association, which could be applied toward the salary of a permanent secretary. We have taken ourselves too seriously in thinking that our work and meetings should be conducted along exclusive lines. The commercial exhibit is a move in the right direction. It gives an opportunity to see and study what is new in hospital equipment without going to the salesrooms of the manufacturer. It is nothing more than has for years been done by the American Medical Association and state medical associations.

We do not believe that the dropping out of members is due to any extent to the lack of interest in hospital work. Rather do we feel that with many it is a financial problem. When there are long distances to go, it is a serious financial demand on the income of some of the members. The reasons I have mentioned in the beginning of this article which influence the attendance at the meeting is another reason responsible for members dropping out. Does this organization cover too wide a field? Can the best interest of the hospitals and hospital workers be better served by smaller units? These are questions for some thought and study.

It is an established fact that for any organization of men and women to have a successful existence, it must have a definite purpose in view. Within the past two years changes of vast importance have taken place in our national and international affairs. There is almost a unanimity of feeling among the citizens of the United States that our nation should be adequately prepared in military and naval affairs. We hear much about industrial preparedness. Many of the country's ablest men are trying to coordinate our industrial life so that it will be available for our country in time of need. A field of constructive work has been presented to us in connection with all this. Our hospitals, at the present time, have no affiliation with the plans of preparedness. Should the time ever come when it is necessary for us to engage in a war, we would be called on for service along lines for which we are not organized or prepared. Is it not time that we give some thought to this matter? We could be of great service to our country at such a time of strain and distress. Two or three hospitals have taken up the matter with the proper officials and have made a beginning. We suggest that the presiding officer appoint a committee to make a survey of this matter and report at the next meeting of the association—not only a plan for base hospitals, but whether it is feasible to work out some scheme in which all can cooperate.

What can we do to make these meetings more interesting and useful? We feel that our trouble is more one of omission than of commission. Those who have had the responsibility of preparing programs know full well the great difficulty of securing papers from the members. We have already said that there is too great a spirit of letting a few do the work. Until this is changed we cannot hope for much improvement or progress. We are at a loss to suggest any improvement on papers to be read here. We do not see how the program for this meeting could have been greatly improved—the subjects are intensely practical and in every way interesting. It is difficult to find new subjects each year on which we can display our literary and oratorical talents. It is hardly possible to write a paper which does not infringe on something which has been said or written. This is as true of conventions along other lines as it is of this one. We are for the most part dealing with concrete problems in our daily life. We have ideas which we would like to develop, but, after working them out in our own minds and considering the costs, we have to consign them to oblivion. Few of us have sufficient funds at hand so that we can indulge in the advanced ideas before they are thoroughly tried out. The fact, however, remains that a very large percentage are fettered by financial difficulties. If this be true, we must then try to conduct these meetings so that they will give help to those most needing it; so that they will help to elevate hospital work and practice in general. We can build our temples with spires reaching into the clouds, but it is on the ground floor that we must worship. It is an inspiration to hear a paper on a subject utopian in character, but does it help to solve the problem of those we are trying to get to come to these meetings? We venture that a very interesting session could be held on the subject of practical utilities in machinery to replace help—a problem which has annoyed us all during the past year. This is an age of machinery, and many things are adaptable to hospital uses. Insurance for employees in hospitals is quite generally practiced in England. We are yet unaware of it being taken up by American hospitals, except in a few of those for mental diseases. We believe that the subject is worthy of study to determine whether it is applicable to general hospitals.

In many hospitals there is a lack of proper coordination among the various departments. The time is here when no man can live his life unto himself alone. He must come in touch with his fellow, whether or not he wills it so. Those interested in the professional side of the work, the doctors and nurses, know little and often care little about financial affairs or the difficulties the matron is having with employees. The help feel that they are only to do the hard and unpleasant things, and care little about reducing waste or giving good service. Often the medical profession is not interested in what the superintendent of nurses is trying to accomplish along educational lines and higher standards for her pupils. The result of it all is a lack of proper team-work. Can anything be done or said which will enable members, after attending these meetings, to go to their respective hospitals with a spirit to try to get a more harmonious action with their people?

We have suggested enough along these lines to give you an idea of our trend of thought. Do not understand that we deprecate the theoretical papers; we recognize their

value and their place. We do want to make it plain that the vast majority who come here need all the assistance we can give them in advising them how to handle their domestic, their professional, and their financial problems with the resources at their command. Finally, we urge on the new members present, and on those who have not cultivated it, the value of friendship. The quiet talks with those working along similar lines are, many times, quite as valuable as the papers read. The friendships formed often become enduring ones and a pleasure to us in our later years.

The Open Hospital—A Factor in Preventive Medicine[1]

BY WARREN L. BABCOCK, M. D.,
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It was with much hesitation and diffidence that I consented to prepare a paper on the subject of the Open Hospital. It occurred to me after some consideration that the open hospital, so-called, as organized and managed in the West, is a much misunderstood institution, especially on the part of our eastern hospital brethren. One or two of my eastern friends, who have spent a hospital life in closed hospitals, have thrown up their hands in horror when informed that many, if not most, of the hospitals west of Buffalo were open to the practice of any qualified and registered physician. With your consent, I shall limit my discussion to the open hospital as a factor in preventive medicine.

There are really three classes of hospitals to be considered in this study—the closed hospital, the restricted hospital, and the open hospital. The closed hospital, of which we have many examples in the East, restricts its medical and surgical work to its resident or attending staff; the restricted hospital limits outside physicians to certain accommodations, possibly private rooms only; while the open hospital, with or without an attending staff, usually receives patients for treatment under the care of any registered physician of good standing and proved competency.

We recognize that the closed hospital has a field and a mission of its own. Questions of teaching policy and control properly require that it be administered by the teaching element. Medical schools have diminished in number during the past decade, and the number of hospitals affiliated with teaching institutions have relatively decreased. A careful estimate shows that about 20 percent of the hospitals of the country participate directly or indirectly in the undergraduate teaching of medicine. The 80 percent are represented largely by the open or restricted hospital.

The principal arguments in favor of the closed hospital center about the patient. Those in favor of the open hospital center about the medical profession as a whole, the hospital exerting its influence as an educational factor in keeping the physician familiar with the advances in medicine and surgery and up to date in treatment, methods, and technic. Let it be understood that these are only main arguments in either case. The argument that the open hospital more greatly benefits the profession at large can be amplified to include the public, and including the public, ultimately, of course, includes the individual who is sick and the recipent of hospital care.

If we are to consider only the individual who is ill at the present moment, the closed hospital offers the greatest potential possibilities per se; but if we are to consider more broadly the greatest good to the greatest number, the advancement of the medical profession as a whole instead of the preferment of selected members, the advance of preventive medicine and the care of the masses of the future, we realize that herein lies great reason for the continued existence of the open hospital. The open hospital, therefore, stands unconsciously in the position of a post-graduate school for the medical profession. In other words, it is practically the only means by which the physician or specialist at large can obtain his scientific discipline.

The announcement of the regents of the American College of Surgeons, recently issued, entitled, "A Tentative Outline of Study of Clinical Training of Physicians and Surgeons After Graduation," contains the following extract:

> "In the making of a physician or of a surgeon today, there comes between graduation from the medical school and the independent practice of medicine or surgery a period of clinical training. This training, both by public opinion and by the profession itself, is now generally considered a necessary enactment of those who would enter practice. But both the general public and the profession are still in a twilight haze as to what should constitute this training. Ideals in the matter differ widely among the various sections of the country. * * * Scientific discipline in the actual treatment of disease and injury is, of course, the basis of the high standard sought. * * * The larger hospitals, obviously, are the centers for this discipline. The vast teaching responsibility devolves on them, and any genuine effort to study the full scope of medical education leads to analysis, not only of what the larger hospitals are doing in the way of instruction in medicine, but also of the ideals which guide their teaching. * * * It is the hope of the regents of the college, further, that this report will make for a closer bond between the practicing profession and the hospitals as teaching institutions. With few exceptions, however, interns, assistants, and occasional practitioners are the groups affected by the graduate teaching of hospitals. And, however effective this teaching may be, it does not mark the full educational usefulness of hospitals, for it does not serve the need of the great mass of busy practitioners. Education in medicine is never finished, and the large majority of those in the profession desire to keep pace with the science of medicine; but only in scattered instances are the facilities for such progress practically within the reach of these men."

In plain language, the regents of the American College of Surgeons point out that the present facilities for post-graduate teaching are limited in scope, and can serve only a fraction of the profession, probably less than 1 percent. Indeed, the American College of Surgeons exists for the purpose of elevating and standardizing the practice of surgery. Any surgeon who meets its requirements is eligible to membership in the college. The professional opportunities and influences centered in our hospitals should be used to elevate and standardize the whole profession, instead of building up, by preferment, a professional class or caste. Do not misunderstand me to insist that every graduate in medicine should have opportunities for hospital practice. Any open hospital can adopt standards and rules which will exclude from practice any physician who is incompetent or unfitted to practice therein. The preliminary educational or professional training of the physician should not be the criterion by which he is admitted or excluded from the hospital. Many of our greatest and some of our most recent leaders in the profession have been graduates of class B and class C schools. We all know, and most of us are ready to acknowledge, that native talent and ability, properly led and directed, attain heights seldom reached by all the graduates of our most advanced medical schools. Without conscious effort, the open hospital offers continuous post-graduate instruction to the element of the medical profession most in need of practical, scientific training. The announcement of the regents of the American College of Surgeons points the way even more definitely than the quotations which I have just given.

[1]Read at the eighteenth annual conference of the American Hospital Association, Philadelphia, September 26-29, 1916.

In another section of their announcement will be found the following:

"In many a community there is a hospital well equipped with laboratories and other facilities for medical diagnosis. Here are men, also, competent to use the equipment and to teach others how to use it; and yet access to these facilities is restricted to members of the hospital staff. The earnest practitioner in the vicinity who is not on the staff finds the hospital doors closed to him. Naturally, he comes to look on the hospital, not in any way as a source of help or of inspiration, but rather as an unfair advantage in the control of his rival practitioners."

Concretely, therefore, we have had pointed out to us that which I choose to consider the second most important function of a hospital—the first and foremost, the care of the sick; and the second, the education of the profession. The entire medical profession should have opportunities to participate in the highest professional endeavor within their reach or within their community.

DEVELOPMENT OF THE OPEN HOSPITAL

Possibly 80 percent or more of the hospitals of the country are open or restricted hospitals. If we trace the origin, growth, and development of hospitals, we shall find an explanation for the existence of the open hospital. It is to be here acknowledged that the altruistic purpose of past education of the medical profession has not entered into the origin of the open hospital, but it stands today as a good reason for its continued existence. When a community reaches a population of five, ten, or twenty-five thousand, the civic or municipal spirit of the lay public and the professional needs of the medical profession mutually agree that the town requires hospital facilities. In the beginning the organization of a hospital, in most instances, is in the hands of a group of physicians whose efforts are assisted or augmented by public committees, usually composed of leading citizens. Money is raised, a hospital built, and some organization perfected. In a sense, it is a community hospital, receiving patients from the city and surrounding country, and is usually supported by all the physicians of the community. In the beginning all qualified and registered physicians are equal, and there at once commences, or should develop, a process of elimination of the physicians unfitted by character, personality, and temperament for hospital practice. Take note that I do not consider the educational factor or lack of training a sufficient cause for their elimination—their practical education will come later. The community hospital is at first without endowment funds, and must have universal and liberal support from the entire profession in order to exist; hence its by-laws provide that any qualified and registered physician may send private patients to the institution for care in its wards or private rooms. In a few years the hospital may receive an endowment. The extent of the charity work carried on depends entirely on the size of the endowments, and usually increases with the age of the hospital. At its organization an attending staff may or may not be formed; if not at its foundation, such a staff is usually formed after a few years, when a more centralized interest develops, which in many instances tends toward restriction of certain hospital privileges. Closer scrutiny of the character of work performed by physicians who have the privilege of using the hospital develops; later the wards of the hospital are closed to all but staff members, the private rooms still being open to the profession. In the open hospital the only prerogative of the attending staff over the other members of the profession is usually the care and treatment of the free and charity cases and the nurses and employees. In the restricted hospital the prerogatives of the attending staff are as stated for the open hospital, plus the use of ward beds for their private as well as staff patients. It has not come to my notice that the hospital which has reached this stage of development recently has further restricted its privileges so as to entirely exclude all members of the profession other than its staff. Undoubtedly such instances have occurred, especially in the case of hospitals that have been joined to teaching institutions, as college or university hospitals.

At least 75 percent of the hospitals of the country are less than fifty years of age. The cycle of passing from a wide-open institution to a restricted hospital may cover a varying period of years. Hospitals founded within the last few decades will be found to have a shorter cycle from the open to the restricted institution. Up to the present time the endowment funds of the great majority of the hospitals of the country are not sufficiently large to permit of the maintenance of the institution without the patronage of private patients, which patronage naturally has its source in the profession as a whole, rather than a few medical men. The elements, therefore, that permit of advance toward restricted privileges are as follows:

First, the increase of endowment funds, which carry with them centralized professional influence.

Second, the building and organization of other hospitals in the community, thereby dividing the professional influence.

Third, an affiliation with colleges or universities as a teaching institution under their control.

Fourth, the development within the hospital of a strong group of physicians and surgeons, whose training and influence tend to professional segregation.

In this discussion we shall consider the small private hospital organized by a limited group of physicians. These are generally surgical or special hospitals conducted for convenience and profit, without endowment, and having no centralized public, professional, or civic backing. These institutions offer a place of vantage to the strongest or most active physicians in the community. As the community develops, these small hospitals are sometimes taken over by a hospital board or commission organized by the influential citizens of the community, who raise funds for their enlargement or endowment and open the institution to the entire profession.

The open hospital, therefore, at its birth seems to be a child of the frontier, dependent on the universal patronage of the community, and is as much a public necessity as the village bank or railway station. It must necessarily exist as an open hospital, receiving the patronage of the entire profession until such time as endowments provide an income with which it can be operated as a restricted hospital.

The open hospital, in order to justify its existence, must discriminate between the competent and the incompetent physicians who patronize it. Efficiency in professional work is a relative term, and it is rather difficult to classify physicians on this score. The physician should be given the benefit of a doubt until he manifests absolute incompetency, lack of progressiveness, unwonted carelessness, or indifference. The treatment, methods, and technic of physicians practicing in open hospitals should be studied, and the personal equation of the man estimated as far as possible. In order to do this, the superintendent of an open hospital should be a medical man of discrimination and judgment. In the smaller hospitals, which are usually in charge of women superintendents, a small committee of the medical staff should scrutinize the work of the out-

siders. Unfortunately, personal prejudice and bias too often play a part and lead to many professional jealousies. The discriminating medical superintendent, clothed with ample power by his board of trustees, is in a better position to estimate the character of work of the outside physician.

It has long been understood that the very poor and the very rich are able to obtain the highest grade of medical and surgical service, and that the great middle class have to go to the bargain counter. They have to bargain for their doctor or surgeon in the same manner that they shop in a department store. As a result, the untrained, defectively educated element in the medical profession waxes prosperous, and is always busy with a practice made possible by the splitting of fees or the trading of patients with specialists. These physicians are not naturally unscrupulous, but have followed the line of least resistance in obtaining their practice. How much better it would be for the hospitals of the country to encourage the recent graduate in an affiliation with a hospital that will ultimately be the means of elevating his plane of practice. Certainly the environment of any physician or surgeon who has entree to a hospital is far more conducive to higher grades of work, to progress in methods and technic, and to absorption of new methods and new ideas of colleagues with whom he is rubbing elbows. This phase of post-graduate medical education has attracted the attention of some of the leading educators of the country. The address of Dr. Henry S. Pritchett, president of the Carnegie Foundation, delivered at the opening of the new Cincinnati General Hospital, February 20, 1915, entitled, "Democracy and Medical Education," is largely a plea for greater and broader opportunities for the entire profession, rather than the preferment of individual members.

He reminded the Cincinnati community that the restriction of hospital privileges to a few inevitably leads to the efficiency of the few and the inefficiency of the many. He pointed out that, even though the efficient few have a large practice, the bulk of the medical work is, after all, done by the many of the profession, and, if the many lack proficiency or opportunities for progress, the services they render are successful in proportion to their opportunities for gain or increase in efficiency. The public, therefore, frequently and unnecessarily receive poor service, with all the destructive consequences that follow, because the family doctor is denied admittance to the hospital that the citizens and the doctor both help support.

"Generally, the practitioner had to get his experience at the expense of his patients, and, in spite of the noble successes that have come out of the old methods, the great wrong to the public lay in the fact that, to produce a small number of great physicians and surgeons, a vast horde of unqualified medical men were turned into the profession to earn their living as best they might."

Dr. Flexner's report on medical education in the United States was the means of awakening the medical profession to the value of improved theoretical and practical training in medicine. We need a survey and standardization of our hospitals to awaken the profession to the value of hospitals as continuous post-graduate teaching schools.

The registration and licensing of physicians by state boards is the result of a mental test of their knowledge of theoretical medicine. How often we see incompetent medical men in practice who have taken high standing in state board examinations. Passing their state board, they enter the practice of medicine absolutely free from mentor, coach, or critic, and in general practice bury the victims of their incompetency, neglect, or carelessness, free from public or professional knowledge or criticism.

The rapidly diminishing numbers of medical colleges and the contraction of centers of medical education to a few large cities throw a greater responsibility on the non-teaching hospitals of the country, which represent nearly 90 percent of the total.

In the open hospital the outside physician comes in daily contact with the members of the attending staff, who are usually the most progressive members of the profession in the community; he rubs elbows with the youngest members of the profession, represented by the resident intern staff, and he witnesses the modern methods of nursing in hospitals. The hospital atmosphere and environment place him decidedly on his metal, tend to bring forth his best work, and stimulate a conscious pride in achievement. I have known not one, but scores of medical men, often graduates of class C medical schools, permitted to practice in open hospitals, learn and observe from the attending medical staff most of their practical medicine. I have seen these physicians, endowed with native talent and capacity, advance and progress until they lead their profession in the community or in their work or specialty. There is no factor more potent in submerging the scientific spirit than the harassing demands and details of general practice, and the general practitioner needs the hospital stimulus. It need not be emphasized that the practice of outsiders in open hospitals be watched, their work supervised and augmented by aid and instruction, and checked with the standards of the attending medical staff. It is even necessary now and then to exclude, after due observation, physicians who are hopelessly inefficient and unprogressive. By this means, and scarcely in any other manner, is a practical classification of professional efficiency possible in an isolated community, a classification at once known to the profession and even to the laity. Certainly the physician who demonstrates his incompetency after practice in a hospital is a marked man and less potent for harmfulness in the community.

In the large cities, branch hospitals, in localities not provided with hospital facilities, built, organized, and controlled by the main hospital, offer great possibility for community service. A limited experience with branch hospitals has demonstrated the early development of community interest, both financial and social in character. If the branch hospital is open to the practice of the general profession, a marked stimulation and advancement in methods of professional practice may be noted. The branch hospital should be completely organized and equipped as a general branch, with all major departments represented. It can be administered at a less per capita cost than the main hospital, owing to the fact that some overhead expenses of a supervisory character can be distributed between the branch and the main hospital. The organization of an attending staff comprising the leading physicians of the branch locality will widen local professional interest and enable a few qualified medical men to participate officially in the work of the hospital.

The establishment of a fifth hospital intern year as a prerequisite for state license in all states would soon bring about a wider desire in the profession for permanent hospital affiliation. It has been my experience to observe that the young medical man with a practical hospital training attempts to secure permanent hospital affiliation early in his professional career.

The American Hospital Association should take a decided and definite stand on the subjects of hospital standardization and the fifth intern year. It can scarcely be questioned that both these problems stand as progressive hospital policies. We need a Carnegie Foundation and a

Flexner to point the way. When our hospitals are once standardized and have a unity of method and purpose in teaching, the terms "closed," "restricted," and "open" as applied to hospitals will no longer be used.

WEST VIRGINIA HOSPITALS MEET

Convention at Huntington Has Fine Program and Good Time—Hospitals Have Rosy Outlook

The annual meeting of the West Virginia Hospital Association took place at Huntington on October 11, and those who attended got the impression that a really worthwhile hospital movement had been set afoot that promised far better conditions in the hospitals of the state.

Sixty-five hospitals of the state were represented. There were three sessions—morning, afternoon, and evening. The evening session was under the auspices of the Cabell County Medical Society, which also gave a dinner to the members of the association at Hotel Frederick. Following the dinner, addresses were made as follows: "The Duty of a Physician to the Hospital," by Dr. G. C. Schoolfield; "The Duty of the Hospital to the Physician," by Mr. Pliny O. Clark; and "The Duty of the Community to the Hospital," by Mr. C. P. Snow, president of the Chamber of Commerce of Huntington.

The programs of the morning and afternoon sessions were as follows:

Invocation, Rev. Newton Donaldson, D. D., Huntington; address of welcome, Mr. C. P. Snow, president Chamber of Commerce, Huntington; address by the president, Dr. G. C. Schoolfield, Charleston; address, "The Purchasing of Supplies," Dr. E. H. Thompson, Bluefield; report of the American Hospital Association, Pliny O. Clark, Wheeling. Discussion.

AFTERNOON SESSION

Address, "The Commercializing of the Pupil Nurse," Miss Emily Bauer, superintendent C. and O. Hospital, Huntington; address, "Short Sketch of the History of Hospitals and Trained Nurses of West Virginia," Dr. A. K. Kessler, Huntington.

There was considerable discussion, and then the presentation of recommendations from the State Graduate Nurses' Association by Mrs. Susan Cook, president of that association.

Report of the Membership and Auditing Committee. Report of the Committee on Legislation and School for Nurses. Report of the Secretary and Treasurer. Report of Nominating Committee.

The election of officers resulted in the following choice: president, Dr. Wm. A. McMillan, McMillan Hospital, Charleston; first vice-president, Dr. Chas. H. Wingerter, Wheeling; second vice-president, Dr. J. A. Guthrie, Guthrie Hospital, Huntington; third vice-president, Mrs. Geo. Lounsberry, Charleston; secretary and treasurer, Dr. W. H. St. Clair, Bluefield.

Time and place of next meeting, October, 1917, at Fairmont, W. Va., at Hotel Fairmont.

The Hospital's Liability for a Patient's Child

An infant child of a patient in a hospital was fatally injured through coming in contact with a steam pipe in the hospital while the mother was under treatment there. Asserting that the accident was attributable to negligence of those in charge of the premises, the child's administrator brought suit for damages. Defendant hospital sought to secure summary dismissal of the suit on the ground that the complaint failed to state a right of action, but the Supreme Court of Westchester county, New York, has refused to dismiss the claim on defendant's demurrer, thus leaving the case to be tried by jury. (Roche vs. St. John's Riverside Hospital, 160 New York Supplement, 401.) Summarized, the principal points of law ruled by the court are as follows:

A hospital, although not legally bound to receive into its custody the infant child of a patient, on doing so, is legally bound to use a reasonable degree of care to prevent injury to the child, whether the service is rendered gratuitously or otherwise. For breach of this duty there is liability for damages resulting as a direct consequence. Hence, if plaintiff can prove in this case that the hospital attendants carelessly permitted the deceased child to come in contact with the steam pipe, whereas the exercise of reasonable care under the particular circumstances would have avoided the accident, there is liability.

TO DISCUSS SOCIAL HYGIENE

National Association Meets in St. Louis—Men of National Fame to Participate

St. Louis is, in a sense, the birthplace of the American Social Hygiene Association. In this city a number of years ago the American Federation for Sex Hygiene was organized. The American Vigilance Association, organized in Chicago, and the American Federation for Sex Hygiene merged, forming a great national organization under the name of the American Social Hygiene Association.

On November 20 and 21, 1916, the American Social Hygiene Association will hold its annual meeting in St. Louis. Many of the most prominent leaders in social hygiene work will be present, and will address public meetings on various phases of social hygiene. Among the notable leaders who will participate in the program are: Dr. Abram W. Harris, president of the American Social Hygiene Association; Mr. Jerome D. Greene, of the Rockefeller Foundation; Dr. William F. Snow, general secretary of the American Social Hygiene Association; Dr. J. N. Hurty, commissioner of health of Indiana; Dr. S. J. Crumbine, commissioner of Health of Kansas; Dean Herbert L. Willet, of the University of Chicago; Dr. W. A. Evans, of the *Chicago Tribune;* Dr. William A. Pusey, of the School of Medicine of the University of Illinois; Attorney General George Cosson, of Iowa; Dr. George R. Dodson, president of the St. Louis Social Hygiene Society; Mr. J. Lionberger Davis, chairman of the Committee of One Hundred, St. Louis; Mr. Percy Werner, St. Louis, member of the board of directors of the American Social Hygiene Association; Mr. Samuel P. Thrasher, of the Committee of Fifteen, Chicago, and numerous other of the most prominent leaders in the social hygiene field.

The public health and law enforcement aspects of social hygiene will be thoroughly discussed, and the problems analyzed and threshed out in the various public meetings. A group of prominent citizens of St. Louis, headed by Dr. George R. Dodson, Mr. J. Lionberger Davis, and Mr. Percy Werner, are making the local arrangements for the national meeting. Programs and other information can be secured from the Central States Division office of the American Social Hygiene Association, 122 South Michigan Boulevard, Chicago, Ill.

Crime Cured by Surgery

In Chicago during the past month judges in the correction courts have given the option to two aged perverts to submit to sterilization or go to the penitentiary. Formerly these aged men would have been hanged or imprisoned for rape. They were both senile and were beyond self-control. In both cases sterilization was chosen. One of the men was a most pathetic figure. Both he and his family realize his condition, and the old man seemed to be grateful that the law had pointed out the remedy.

CURRENT HOSPITAL LITERATURE

ALBERT ALLEMANN, M. D., Foreign Literature.
Army Medical Museum and Library, Office of the Surgeon-General, United States Army.

Economical Treatment of the Tubercular Patients in the Temporary Hospitals (Traitement économique des tuberculeux dans les hôpitaux temporaires). Dr. de Fleury, Bull. Acad. de médecine, Paris, 1916, LXXV, No. 8.

One of the most common diseases among the soldiers during the modern trench war is tuberculosis. It is one of the problems with which the medical services of all the belligerent countries have to contend. The author, who was in charge of a military hospital on the northern coast of France, devised a method of treatment which was very successful. From the start he isolated the tubercular soldiers from the other patients, placing them in buildings with southern exposure. He then had a large shed, 30 meters long and 2.20 meters deep, erected. This shed was located near the hospital on sandy ground, and was tightly closed on the north, west, and east, and open on the south. A number of cots were placed in this shed, on which the patients were exposed during the whole day to the warm rays of the sun, only the head being protected. The author warmly recommends this mode of treatment, which is not only accompanied by great success, but is also very economical.

Raw Versus Boiled Milk. Ed. Journal of the Amer. Med. Ass'n, 1916, LXVII, No. 6.

Dr. Janet E. Lane-Claypon has just issued a work under the authority of the Medical Research Committee of the national insurance act. Her conclusions are in favor of boiling, though she is unable entirely to exclude disadvantages. She is inclined to discount any vitalistic theory of the efficiency of natural milk as a constructive in infant feeding. She admits, however, that milk contains substances of unknown composition essential for life when milk is the sole diet. But she considers that there is no evidence to show that these substances are destroyed by boiling, especially when the heat is not applied for prolonged periods and when a temperature not exceeding the boiling point is used. The loss of vitamin, she says, if it occurs, is evidently not sufficient to affect the nutritive value of milk.

The Problem of Tuberculosis Sanatoriums (Die Sanatorienfrage. Dr. M. Holmboe. Zeitschrift f. Tuberk., Leipzig, 1916, XXV, No. 3.

The author first gives a retrospect on the development of the hospitalization of tuberculous patients, with especial reference to Germany and the Scandinavian countries. At first sanatoriums were established only for patients in the initial stage of tuberculosis, but this was soon found to be insufficient. Something had to be done for the more advanced as well as for the incurable cases. In solving this problem, two views predominated. One side demanded that separate sanatoriums should be established for curable patients, while the other maintained that a separation of the curable and advanced cases was not necessary. The latter view prevailed to some extent in Sweden, while in Germany, Denmark, and Norway almost throughout separate institutions were established. The author is a warm defender of this system. At the close he considers the question of the most suitable size of tuberculosis sanatoriums. The International Association for the Prevention of Tuberculosis recommends 100 beds as the normal size, and places the maximum at 200 and the minimum at 60 beds. The author is of opinion that a sanatorium should not be so large that the medical director cannot follow the condition of each individual patient. In institutions of more than 60 beds he considers an assistant physician necessary.

The World's First Hospital Ship. Waldon Fawcett. The Nurse, 1916, V, No. 3.

A ship designed and constructed expressly for use as a hospital ship is the ambition of the officers of the United States navy. This vessel, when completed, will rank not only as a model floating hospital, but as the first craft especially constructed for use as a military or naval hospital ship.

The action of the United States in planning for a special hospital ship, a floating hospital, has not been due in any measure to the object lessons of the present war. Long before the outbreak of the conflict in Europe the experts of the United States Navy Department made plans for the pioneer hospital ship, and Congress at its last session was nearly ready to appropriate the sum of $2,250,000 for the work of construction.

The Mobile Surgical Hospitals (Gli ospedali chirurgici mobili). Dr. B. Rossi. Ospedale Maggiore, Milano, 1916, IV, No. 5.

As the present war has revolutionized the methods of warfare, the army medical service of all countries also underwent far-reaching changes. If we consider that during the twelve days of the battle of Ypres, 100,000 German wounded passed through the railroad station at Brussels, and that after the battle on the Marne the French medical service had to take care of 112,000 wounded, we get an idea of the enormous demands made on the field hospital service of a modern army.

The wounds from high explosive shells, shrapnels, and other arms are so much more serious than formerly, and the mortality with the old conservative methods of treatment is so great, that the question if immediate surgical intervention in all cases of lesions of the cranial, thoracic, and abdominal cavities at once arose. From statistics the French surgeon Abadie established the fact that in wounds of the abdomen a far greater number of patients can be saved by an immediate laparotomy than by the old conservative methods. Provisions were made in all armies to enable the surgeons to perform operations immediately behind the front and as early as possible after the wound is inflicted. To attain this same end, the medical department of the Italian army has organized movable surgical hospitals, which can be mounted and dismounted in a few hours and carried by automobiles wherever they are needed.

Such a hospital consists of, 1, an operating house, 4x6 meters (barrack tent, as the author calls it), having four walls of wood, with windows all around and covered

throughout with impermeable tent cloth; 2, a tent 8 meters long and 5 meters wide, divided into three compartments for the preparation of the patient, disinfection of the surgeons, and sterilization of the material; 3, a hospital tent for the patients; 4, a pharmacy tent; 5, a tent for the hospital stewards and one for the officers; 6, an x-ray tent; 7, an isolation tent for infected patients. The whole hospital can be set up for immediate use in four hours, and is carried from place to place by eight specially constructed automobiles.

The Function of the Pathological Laboratory in the State Hospital Service. William J. Tiffany, M. D. State Hospital Quarterly, 1916, I, No. 4.

The laboratory may be made the medium through which to call the attention of the clinicians "to the nonpsychological clinical medicine and to raise the standards of work on the somatic conditions. In the autopsy material and in the laboratory methods the somatic issues come to the front; hence their paramount importance for a practical balance in our system of controls."

The manner in which the pathological material is presented to the staff is of the greatest importance. There is no better way than to have the physicians who have worked up the cases clinically attend the autopsies. They should bring with them to the autopsy a complete summary of all the physical findings and other clinical facts. A pathologist cannot be expected to furnish an explanation for a certain symptom unless he is given some idea of what he should search for.

The custom of waiting for a patient to die before making any request for a post-mortem examination is responsible for a loss of many autopsies. A little tact in presenting the proper argument to the relatives will prevent many curt refusals. The argument that the relatives should know exactly, not only the cause of death, but also the incidental diseases of every member of their families, appeals to most intelligent people. When they understand the benefit that they themselves may obtain from such an examination, they are often eager to consent.

The laboratory equipment and force should be such that any modern diagnostic test may be undertaken, and all new methods of clinical diagnosis given a careful trial. Our present-day knowledge of medicine is largely the result of post-mortem examinations of cadavers, and, if our standards are to advance in the future, more attention must be directed to this important subject.

The Average Cost of Hospitals and the Standards of Hospital Construction in Italy (Del prezzo unitario degli ospedali e dei criteri per il prezzo degli ospedali italiani). Dr. Bertarelli. Rivista di ingegneria san., Milano, 1916, XII, No. 9.

The author says that whenever a hospital is to be built in Italy, limits are placed on the cost of construction in the advertisements for competitive bids. Recently for a hospital of 650 beds to be erected in Parma the costs were limited to 3,000,000 francs, while such a hospital would in reality require an expense of more than 3,500,000 francs. The result is that such hospitals are lacking in the essential principles of modern hygiene. There are certain fundamental principles in modern hospital construction which can absolutely not be ignored, and, if there is not enough money on hand to build a hospital, it is better to wait until sufficient means have been collected. There are at present no hospitals in Europe which cost less than 10,000 francs ($2,000) per bed. In Italy the expenses for a hospital rise rarely higher than 5,000 francs ($1,000). It is, of course, possible to keep the construction within the most modest limits, but it is always done at the expense of the necessary cubic space per bed. Such a hospital will soon prove itself technically insufficient. In such cases it is best to continue to use the old hospitals until sufficient means have accumulated to erect a perfect structure.

Report of Eighty-two Cultures Taken from Physicians' Clinical Thermometers. Walter R. Ramsey, M. D. St. Paul Med. Jour., 1916, XVIII, No. 7.

Compared with the high standard of cleanliness set for other instruments and utensils used in the practice of medicine and surgery, the average clinical thermometer gets but scant attention. The care given a clinical thermometer varies much with different physicians. Many deem it sufficient to wash it in water either by stirring it in a glass or allowing water from the tap to run over it, after which it is sometimes dried and returned to the case, and sometimes returned without drying. Others, in addition to washing it more or less thoroughly in water, wipe it off with alcohol or some other antiseptic, such as carbolic acid, lysol, or whatever other antiseptic solution is available. In hospitals various methods of cleansing the thermometers are in vogue. The most common practice is to take them from a glass containing some solution, such as formalin, and, after using, return them to the solution. When there is a large number of patients in a ward, these thermometers are often used again without being thoroughly washed or allowed to remain for any length of time in the antiseptic solution. To demonstrate that more than ordinary washing is required to render clinical thermometers free from secretions after using, the following experiments were made: Six cultures were taken from thermometers directly after they were removed from the mouth, after first washing them in running water. Six cultures were taken from thermometers, after removing them from the mouth, after first washing them in running water and then rubbing them off with 95-percent alcohol. On the first series of six, Nos. 1, 2, 3, 4, and 5 gave cultures of various organisms, including staphylococci and large spore-forming bacilli. No. 6 was sterile. Of the second series of six, only one gave any culture, the remaining five being sterile. Five cultures were taken from thermometers after washing them thoroughly with running water with constant rubbing, and then washing them off thoroughly with sterile cotton wet with 95-percent alcohol. All these were sterile. Five cultures were taken from thermometers with a smooth surface (scale on the inside), which had been washed in running water with soap and then dried on a clean hand towel. Two of these gave cultures, one of staphylococcus albus, the other of a large diplococcus. From the foregoing experiments it is apparent that clinical thermometers are possible sources of infection, and that some safer method of rendering them clean than is generally in vogue should be employed. It has been demonstrated that careless washing will not suffice, but that thorough washing with running water and then alcohol will render them clean.

The F. Ponti Pavilion of Mechanotherapy (Il padiglione di meccanoterapia F. Ponti). Dr. P. Bossi. Ospedale Maggiore, Milano, 1916, IV, No. 3.

Milan is a great industrial city, and has a large population of workingmen. In modern industrial establishments accidents are so frequent that a special institution for the treatment of injured workmen is of great importance. The pavilion for mechanotherapy of the Ospedale Maggiore in

Milan was erected in 1902, and is named after its benevolent founder. It is a one-story structure, and consists of a central building, with two large wings at each end standing at right angles to the main building. The ground plan has thus the forms of two T's whose bases meet. This is the form of all new pavilions of the Ospedale Maggiore.

The pavilion contains several divisions, in which the various affections resulting from industrial accidents are treated. There is a large hall containing gymnastic apparatus for the treatment of deviations of the spinal column; one room contains the Zander apparatus; there is a massage room, a room for light baths, four rooms for the treatment of traumatic lesions of the nervous system containing apparatuses for faradic, galvanic, and static electricity and high frequency currents, an x-ray room, an operating room, etc. From 1902 to 1915 not less than 24,571 cases were treated at this institution.

The Laboratory in Its Relation to the Purchase of Supplies. Burt E. Nelson, Ph. C., Binghamton State Hospital. State Hospital Quarterly, 1916, I, No. 4.

The chemical laboratory of this hospital, in which the analyses for the purchasing committee for state hospitals are made, occupies a position quite similar in function to that of the laboratory in a large manufacturing or other commercial business. The laboratory assists in establishing the comparative values of materials submitted with bids for contracts, and later checks, in large measure, the deliveries to the various hospitals under these contracts. Quite a large proportion of the purchased supplies are more or less amenable to laboratory evaluation. The hospital laboratory can be used in the determination of textiles, agricultural chemicals and seeds, laundry chemicals, paints and painting materials, rubber goods and lubricating oils, while waters, metals, engineering supplies, and foods make up the remainder.

The purchase of a good grade of coal at a reasonable price is only the first problem in fuel economy. The second, and by far the more important, one is to burn that fuel efficiently, so that a maximum number of pounds by weight of steam may result from each pound of coal. This practical combustion in the boiler furnace is a definite physicochemical process and subject to laboratory control, although, from the nature of the case, the analytical work is usually more conveniently done in the particular power plant than in some place more remote.

In the case of cloths used for clothing the laboratory tests are of value, but the kinds of tests will vary somewhat with the use to which the fabric is to be put. In men's suitings the proportion of woolen and cotton, the weight per square yard, from which the weight per running yard is calculated, the nature of the weave, and the fastness of the color are all important. The tensile or tearing strength is also of some value. In cotton fabrics for women's dresses the weight, fastness of the color, and tearing strength are usually most important, although the pattern should be considered from the esthetic standpoint. The value of strong canvases depends almost entirely on the tearing strength.

Analyses of rubber goods often furnish somewhat paradoxical results. Old tissue, containing a larger amount of pure rubber, may show more poorly in the physical tests, on account of its old, "dead," and sclerotized condition, than a newer "young" or "live" tissue which really contains less rubber. Other things equal, however, the tissue which contains the most actual live rubber is usually the longer lived.

Fumigation by Cyanide Gas. Surgeon R. H. Creel, U. S. Public Health Service. The Military Surgeon, 1916, XXXIX, No. 3.

As a result of considerable experimental work, we have demonstrated that 10 ounces of potassium cyanide (KCN) per 1,000 cubic feet of air space is excessive, and that 5 ounces of cyanide per 1,000 cubic feet is sufficient for the destruction of rats and various disease-carrying insects. By this reduction in the amount of material used, cyanide gas is less costly than either sulphur dioxide or carbon monoxide, the comparison, based on a unit price per 1,000 cubic feet of space fumigated, being:

Carbon monoxide (Unit price based on number of ships fumigated per month.)	$0.16
Sulphur dioxide (4 percent) gas	.10
Potassium cyanide at 25 cents per pound	.08
Sodium cyanide at 24 cents per pound (7½ ounces NaCN has the equivalent cyanogen of 10 ounces KCN.)	.06

Cyanide gas is rapidly evolved and quickly diffused. One hour's exposure is sufficient for fumigation of ships or other large spaces where deratization is desired, or for the destruction of fleas, lice, or bedbugs. Our cyanide fumigations have varied in magnitude from the fumigation of small launches and ships to the fumigation of a warehouse containing 1,600,000 cubic feet of space, and with equally effective results.

Cyanide gas, in brief, has the advantage over sulphur dioxide in that it is cheaper, and, because of its great diffusiveness, is much more efficient when fumigating ships or warehouses filled with merchandise. Cyanide fumigation of loaded ships, requiring, as it does, only one hour, in comparison to twelve hours for sulphur dioxide fumigation, possesses an obvious advantage over the latter. Cyanide gas is not injurious to the most delicate fabrics. Fumigation by this agent can be performed in vessels or warehouses containing fabrics, perishable cargo of fruits or vegetables, teas, coffee, tobacco, etc., without the least damage.

PROPORTION OF CYANIDE GAS LETHAL FOR ANIMALS AND INSECTS

Objects exposed to gas	Duration of exposure	Strength of gas	Cost of fumigation per 1,000 cubic feet air space
Rats	1 hour	5 ounces KCN per 1,000 cubic feet air space.	$0.08
Fleas	15 minutes	2.5 ounces KCN per 1,000 cubic feet air space.	$0.04
Lice	2 hours	10 ounces KCN per 1,000 cubic feet air space.	$0.16
Bedbugs	1 hour	5 ounces KCN per 1,000 cubic feet air space.	$0.08
Roaches	1 hour	10 ounces KCN per 1,000 cubic feet air space.	$0.16
Mosquitoes	15 minutes	0.4 ounces KCN per 1,000 cubic feet air space.	$0.006 (Approximately ½ cent.)

The trustees of the Toledo Hospital, Toledo, O., have appointed P. W. Behrens superintendent of this institution to fill the place made vacant by the retirement of Miss Margaret Wallace. Mr. Behrens was formerly superintendent of Lake Forest University Hospital, in Illinois. He received his training for hospital work at the University of Kiel, Germany. Since coming to this country he has been connected with the United States marine hospital service and with hospitals in New York, San Francisco, and Chicago.

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A MUCH SUPERINTENDED HOSPITAL

Los Angeles Institution That Has Had Seven Heads in Fifteen Months

Miss L. V. Swift has been elected superintendent of the Children's Hospital, of Los Angeles. She succeeds Miss Drusilla Schenck, who resigned some weeks ago and returned to her home in Cincinnati.

Miss Schenck was the sixth superintendent at the hospital within fifteen months. The board of directors sent east and secured her services after the resignation of Miss H. Grace Franklin last spring.

Some of the superintendents have not been satisfactory to the board of directors and others have not been satisfied with the management; but in the case of Miss Schenck it is claimed that purely personal reasons required her return to her home in Cincinnati and that no friction had developed.

Miss Swift has resided in Los Angeles for five or six years, and for two years has been connected with the Children's Hospital in various capacities. At the time of Miss Schenck's resignation Miss Swift was office assistant, and in that position displayed executive ability that recommended her to the board for the position of superintendent.

In any commercial enterprise such a state of things as a new head every two months would call for some drastic conscience searching and reorganizing. Where does the trouble lie?

Wants State Control of Tuberculosis

It is reported that at the next session of the Washington State Legislature the state will be asked to take over the county tuberculosis hospitals at Seattle, Spokane, and Tacoma. Owing to the influx of patients from other parts of the state, the counties operating the hospitals are said to have found the maintenance of the institutions too great a burden.

DEPARTMENT OF NURSING

Conducted by MISS ANNIE W. GOODRICH.
Teachers' College, Columbia University, New York City.

Please address items of news and inquiries regarding Department of Nursing to the editor of this department, Teachers' College, Columbia University, New York City.

How Shall the Superintendents of Small Hospitals Be Trained?[1]

BY ANNIE W. GOODRICH.

PAPER I

I beg your indulgence for the following brief and bald presentation of this subject, to which I have not been able to give the time and thought it deserves. But if I had had at my disposal all the time that may have been considered necessary, I question whether my conclusions would materially differ from those I am about to advance.

I have sought unsuccessfully in such reports of this association as were at hand for a definition of the small hospital. I conceive, however, that we are considering the training required for the heads of hospitals of 50 beds, or even less, that are needed in and adequately serve the small town and its surrounding rural districts, or some uncovered, limited area in the city.

Before discussing the question of the preparation of the superintendents, we must of necessity determine the function of the institution. You may perhaps recall Mr. Homer Folks' concise summary of the hospital's function (he did not differentiate between the large and the small institution) that falls under seven heads:

The care of the sick.
The cure of the sick.
The education of the sick.
The training of physicians.
The training of nurses.
The extension of medical knowledge.
The prevention of disease.

This conception of its function would seem to me to establish the modern hospital as the health center, from which would radiate all of the health interests of the community, a conception that should apply equally to the large hospital in the city and the small hospital in the town. We are no longer under the delusion that disease does not exist to any extent outside of cities with large tenement districts. Reliable investigators have revealed the fact that the infant mortality rate of the great city puts to shame the infant mortality rate of many small towns and even rural districts, and that tuberculosis and other infectious diseases have been known to abound in these communities. I cannot vouch for the truth of the story that on the thirty-five farms between two towns were found thirty-five stepmothers, but the reports of rural nurses, with the heavy emphasis that they place on the need of thorough training in obstetrics for those entering the rural field, would not seem to discredit it.

I have been repeatedly told that a very large number of the women patients in a certain state hospital for the insane were supplied from the factory of a small adjacent town, and many years ago I heard that the hospitals for the insane of one New England state had a very high proportion of farmers' wives. It would seem, therefore, that a hospital serving as a health center of even a rural community might find problems as serious and varied as those of the city.

We are not unaware that in both cities and towns are to be found numerous small, unrelated institutions whose functions do not permit of so wide an interpretation as the one we have accepted. It is not possible to conceive that such institutions will multiply, even if they continue to exist. While we may expect an ever-increasing number of hospital beds, an increasing complexity of hospital functions, and larger and more highly qualified staffs, it is quite possible that there may be even a decrease in the number of hospitals.

Weary as we may be of the constant reiteration of the words, *conservation*, *cooperation*, and *efficiency*, the principles they represent are too economically sound not to recommend them to the rapidly increasing social intelligence and sense of civic responsibility. And a public that is also becoming as enlightened as ours through the daily press, the popular magazine, and the publicity methods of health departments concerning scientific medicine, scientific methods, and their accompanying scientific paraphernalia, is not only going to demand such methods and equipment in its institutions, but is not going to be willing to contribute to numerous unrelated, even rival and poorly equipped, institutions when the same funds contributed to one large or several small closely related plants would insure a more scientific and vastly wider service to the community.

Our attention is again and again called, and very rightly, to the high percentage of uncared-for cases of sickness in the community as revealed by the study of sickness in Dutchess county. There are items in this most interesting study about which we do not hear so much that relate to the question of hospital care and the hospital's interpretation of its function. The presentation of these questions in the report has already, I believe, led to some beneficial changes, thereby strengthening my belief that the near future will see a much closer relationship between the hospital and the community and between the various hospitals themselves. Permit me one brief illustration: "There is," says Dr. Shillady, "no hospital provision for the care of early psychosis and no adequate provision is made for the care of feeble-minded and epileptics." Again the report says concerning a family, "If the social service organization had been connected with the Hudson State Hospital for the Insane (for there is a state-supported mental hospital in Poughkeepsie), would not this family have been kept under observation?" I believe now dispensaries and social service departments have been very generally established in connection with these state hospitals. I do not know much about the question of the closed or open-door hospitals, but, whenever I hear about the uncared-for sick of Dutchess county, I recall the beautiful and richly endowed Vassar Brothers Hospital, with its paid resident staff, its good equipment, and all that goes with an endowment; its moderately filled wards; its peaceful isolation from the sickness problems of the town. I recall also the other inadequate, insignificant, unrelated hospitals in the vicinity, and then my mind travels to other towns where somewhat similar conditions exist. If one did not know of a democracy where a system of control

[1] Read before the eighteenth annual conference of the American Hospital Association, Philadelphia, September 26-29, 1916.

of hospitals does obtain—New Zealand—one would not be so optimistic concerning the future hospital relations in the United States.

Whether the superintendents of these institutions of the future will be physicians, nurses, or laymen, time and not the writer will determine. Unquestionably the professional preparation, either as physician or nurse, will be a distinct asset and permit of certain credits, but neither will suffice without a further definite preparation for a distinctly different and demanding business.

More and more it is being appreciated that a hospital's efficiency is to be judged by its cures and not by the low cost at which it is run, and this implies scientific medical and nursing work and all its accouterments.

Less and less is the superintendent of the hospital willing to assume also the superintendency of the school of nursing, but is demanding a qualified principal. If an intern staff is not provided now, it is more often because interns cannot be obtained than because they are not desired. Licensed engineers and licensed pharmacists are the rule rather than the exception. A student pathologist, or even a qualified pathologist, is not now infrequently found in the hospital of 50 beds. And the same may be said of the dietitian. I have been interested to note the emphasis placed on the need of dietitian experts, not less for 35 patients than for 150 or more, both by a hospital dietitian, Mrs. McCulloch, and a hospital superintendent who has had a long experience in both large and small hospitals—Miss Laura Coleman. Surely the chief administrator on whom falls the direction of this highly qualified group of workers should not be the one person who has not had a definite preparation for his specialty.

Whatever may have sufficed in the past, the institution for the sick, small or large, of the future will need apparently for its administration an educator, a scientist, a sociologist, and a good business man or woman, or one whose *business* it is to be a composite of all. The institution is indeed "the lengthening shadow of the superintendent," and to a very great extent the breadth of its policy is determined by him. Says Dr. Moses Collins: "In almost no other vocation of life is so much demanded of the man in the knowledge of human nature, the familiarity with business details, and all kinds of medical and legal lore, as is demanded of the head of an institution for the sick."

What shall be the content of education for this field and where shall it be obtained? No one interested in the problems of professional and vocational education can fail to have noted that for nearly all the business of life today the preparation that is being demanded is not a preparation in the business field alone, but through the schools and universities as well. Says Professor John Dewey:[1]

"There are forces at work which are like destiny in their independence of conscious choice or wish. Not conscious intent, either perverse or wise, is forcing the realistic, the practical, the industrial into education—not conscious deliberation causes college presidents, who devote commencement day to singing praises of pure culture, to spend their working days in arranging for technical and professional schools. It is not conscious preference which leads school superintendents who deliver orations at teachers' meetings on the blessings of old-fashioned discipline and culture, to demand from their boards new equipment, new courses, new studies of a more 'practical and appealing' kind. Political and economic forces quite beyond their control are compelling them."

This year Columbia University opened a school of business in response to an insistent demand for more adequate preparation of men and women for the commercial field. Over fifteen years ago the Chamber of Commerce urged that this school be established, and offered the university a grant of money for this purpose. Its establishment was deferred, however, for various reasons, which are set forth in an article by Professor Seligman, the chief of which I will quote.[1]

"In the first place, it was felt that the demand had not yet become sufficiently great to justify the expectation of a student body satisfactory in either quantity or quality. Secondly, we were convinced that a successful school of the character desired would have to be conducted along academic lines of a modified kind, and that the best results could be hoped for only by securing academic teachers with a business experience rather than business men without academic experience. It was, however, at the time impossible to find a sufficient number of qualified instructors. Moreover, the literature of the subject was as yet embryonic, and the proper curriculum of such a school had nowhere been thoroughly worked out."

The course differs from the course in the Harvard School, being arranged rather on the basis of the schools of medicine, architecture, and journalism of Columbia. Students are admitted who have had two years of college work, or its equivalent, for a two years' course working toward a degree of bachelor of science. A third year is provided, which it is hoped that many will enter and in which they may obtain their master of arts degree. Of this third year Professor Seligman says:

"It is hoped that it will be the most valuable, as it will be the most unique, year in the school. It will correspond approximately to the clinical year that is now being added to our best medical schools."

The foundation required of every student is a knowledge of general economics, accounting, finance, business organization, and one foreign language. The other subjects may then be selected by the student, with the approval of the director.

What similar opportunities for preparation for hospital administration are now offered? As far as I know, the opportunities for the preparation of the superintendents and assistant superintendents of approximately 7,000 hospitals are limited to one division of a department of a college open only to nurses desiring to enter this field, and courses practical—mainly, of six months, I believe—in two hospitals, the latter a method of preparation that has fallen or is falling down in every other line of work.

One can conceive of no greater piece of constructive and enduringly valuable work for this association, no greater contribution toward a rapid standardization of hospitals, than the raising of a fund sufficient to establish at least one school of hospital institutional administration, and to command the services of the most highly experienced administrator in the field for its director, with an adequate staff of lecturers and instructors. Here should flock not only the future superintendents, but those already in the field. Single courses should be taken in the winter by the latter who are in the vicinity of the school, and superintendents from all over the country could, and undoubtedly would, avail themselves of the summer courses. The largest attendance in the department of nursing and health that we have yet had was in the past summer session, and about one-third of the group had been or were hospital superintendents.

I cannot speak for all summer schools, but for the summer school of Columbia University all the bars are let down for students who are already engaged in any field; that is to say, the courses are open to those who do not meet the educational qualifications required for admission to the regular courses. It is true, no credit is given, but the essential feature of the course—the knowledge—is obtainable. This is also true of the very numerous extension courses that are now offered during the college

[1]American Education and Culture, John Dewey, The New Republic, July 1, 1916.

[1]A University School of Business, Edwin R. Seligman, Columbia, Quarterly, June, 1916.

year; in other words, the university, while demanding high standards for those about to enter any field for which it offers preparation, is most generously and democratically elastic toward those who are already established in that field.

Professor Ladd, of Yale, in a recent article entitled, "How Can We Improve Public Education?" says:[1]

"Such summer schools as are held annually at Columbia and Chicago, and at scores of other centers of the higher education, are worth far more for improvement of the personnel of the teaching force than innumerable teachers' conventions, spent chiefly in listening to themselves or to brilliant platform orators, chosen from the ranks of the politician and the clergy."

I think these conventions are of far greater value than Professor Ladd's remark would indicate that he believes, but it does suggest the desirability of biennial meetings, as such meetings would permit of attendance at both conventions and summer schools. The three national nursing organizations have already determined on biennial meetings, although I do not know that they had attendance at the summer schools in mind at the time. The National Educational Association held its convention in New York just before the opening of the Columbia summer school in order that those in attendance might avail themselves of this session. This example might be followed. Unfortunately hospital administrators' vacations do not extend through the whole summer, as do teachers'.

I have entered into such detail concerning the business school of Columbia, first, because it presents a very clear picture of the close relationship today between the school and the business of life, and, second, because it seemed to me to present the course that could reasonably be required for the institutional administrator. Two years of college or its equivalent, two years of technical or professional preparation, and one year of field work. This period of preparation may be felt by some to be too long. The course in hospital administration at Teachers' College covers a period of two years for those desiring to work toward a diploma in hospital administration and the degree of bachelor of science, the admission requirement being full high school and three years of professional training. Many of the students take only one year, but those who have taken the full course have not felt that they had more than, if they had even, covered the subject.

As we look over the courses in the Columbia School of Business and compare them with those that would be called for by a school of hospital administration, the former seem arid and restricted in contrast to the rich human and material interests of the subject that the latter would demand.

Psychology would not be limited to the psychology of advertising and selling. Organization and administration would include and extend beyond business organization. To accounting, economics, and insurance would be added sociology, physics, architecture, hygiene with its varied branches, such as sanitary science, industrial hygiene, health administration. I might continue almost indefinitely, exhausting you before I had the subjects.

It is indeed probable that Professor Seligman's characterization of the literature relating to business as embryonic may apply to the literature relating to the hospital. It is true that there are still only chapters dealing with its problems where there should be volumes. But, on the other hand, we have now chapters where formerly the whole subject was covered in one paper, and every year sees an increase in the quantity and a distinct improvement in the quality of the literature of the field both in this and other countries. A not inconsiderable body of literature has been built up through the schools of practical arts, dealing with laundering and other problems of institutional and household economics, and the literature dealing with nutrition, food economics, and cookery is really quite extensive. There has also, I believe, been a good deal written concerning hospital architecture.

As a practice field, I believe the small hospital, under proper conditions, will be invaluable. The close relation between the superintendent, the plant, and the community, the limited area to be covered, make possible a study and full grasp of every department and all its details, as well as of the community, that is not possible in larger institutions. I am sure that such students would give a full return to the institution for the experience gained even while gaining it. The very teaching of such a group would bring a definite return to the teacher, not only in inspiration, but in actual knowledge. The reputation of a hospital that offered a good practice field would be unquestionably enhanced. I do not know whether the quantity of students desiring such courses would justify the establishment of even one school of hospital administration; the quality needed in the field, I am sure, would. It is constantly asserted that a demand creates a supply. The demand for qualified workers in all departments of a hospital has come, and it far exceeds the supply.

The University of the State of New York has deemed the libraries of this and other states of sufficient importance to the community to justify the establishment of a state school for librarians, although the group entering yearly rarely numbers, I think, over thirty. For admission to this school a full college course is required. The young women (for the students are women mostly) come from homes of no greater wealth, I am sure, than the homes from which come our superintendents of hospitals. I mention this because I fear that some will feel that an overemphasis has been placed on the costly college work. Too much emphasis cannot be placed on the need of a liberal education, and the technical education through the university, for this field.

To be the master of our problem we must come in contact with master minds. "Of what use is a college training?" says James. "A certain amount of meditation has brought me to this as the pithiest reply which I myself can give: the best claim that a college education can possibly make on your respect, the best thing that it can aspire to accomplish for you, is this—that it should *help you to know a good man when you see him.*"[1]

We have today amassing in these great treasure houses of human experience the best that is to be found in the material world, not less than in the world of letters and art. Here may be found the experts in every department of every field represented, concerned to sort out and evaluate the product of the workers, to discover the masterpieces, to build up through their own and other departments a body of knowledge for the future worker that he could otherwise obtain only through five, ten, or fifteen years of experience, if indeed he ever obtained it at all, and thereby advance by many years the value of the worker and the work.

The fundamentals concerning education in any field do not so widely differ. Scientific methods of reasoning are not changed for every subject to which they are applied. Whether we are teaching history, art, or the technic of nursing procedures, the principles of teaching remain the same.

To effectively adjust and keep in harmonious and efficient relationship the human and material elements in an

[1]George Trumbull Ladd, New York Times, July 30, 1916.

[1]The Social Value of the College Bred—William James.

institution for the sick requires a working knowledge of psychology that I defy any university to supply. But what of psychology is there for the human race, no matter where or how the individual interests are directed; and it is always possible to build up a course, or courses, bearing directly on any particular field, provided, however, there are experts in that field to construct them. In the rich soil of a liberal education grow most abundantly vision, ideas, and initiative. If for the commercial enterprises of the nation are needed these qualities, are they not equally needed for the great human enterprise of national health building?

I hardly need to summarize my conclusions concerning the problem which is now before us, but briefly they are these:

Whatever may be the function of the small hospital of today, the hospital of the immediate future, large or small, will do a sufficiently wide and complex piece of social and scientific work to demand a highly prepared administrator.

That at present there is no school or department in which adequate preparation for this field can be obtained.

That to discuss anything short of a school, or at least a department, is as futile and wasteful of time as is the tinkering with an outgrown garment, since courses, excellent as far as they go, already exist, and could and should be availed of until such a school is established.

That an association as representative as this might, it would seem, through some channel, obtain the endowment required for such a field of preparation.

That to make graduation from this school one of the eligibility requirements for the future members of the association would not be more unreasonable than it is to demand a degree in medicine for membership in the American Medical Association or a diploma from a recognized school of nursing for admission to the American Nurses' Association.

And, finally, that such a school would advance the standardization of hospitals by many years.

The Place of Tuberculosis Work in a Nurse's Training

BY ANNIE S. RATHBONE, Superintendent of Nurses, Westfield State Sanatorium, Westfield, Mass.

PAPER II

In the general training of a nurse, an ideal course would emphasize certain broad fundamental principles. Each part of the work would be an interpretation of all the parts—chapters in a book which the theme requires, and which in themselves are of little meaning without the context. There are chapters which may be shortened with less disadvantage than others. An elementary study of main features in the treatment of the eye, for example, is quite consistent with a general three-years' course. An elaboration of that subject would constitute a special course. We give the pupil a full allowance of time in the operating room because it yields unique occasions for mastering the great principles of asepsis. We think she should have practical experience in a psychopathic department—it is the best place for studying the diseased mind, and, without that sensitive understanding of sick humanity, she is only a machine.

Why should tuberculosis be classed as a "special" branch if "even conservative writers are led to remark that, if systematic inspection is made, tuberculous lesions are found practically in 100 percent of the bodies of adults?" (Osler.) And, again, "the failure of the natural tendency of the body to check the growth of the tubercle bacilli is a fault of the body." Can there be a more graphic or comprehensive opportunity for the nurse to learn the highways of preventive medicine, that promised land of the twentieth century?

As far as nursing is concerned, tuberculosis, in its progress, requires two separate and different lines of treatment. Of these the first is pursued in those cases capable of improvement or arrest. It is the carrying out of a strict regimen of living, founded chiefly on the careful regulation of rest and exercise, but largely, too, on every possible hygienic measure, such as cleanliness in all its forms (of which outdoor living is but one) and regularity in every detail of life—regularity of meals, of work, of rest, and of play hours. This course of treatment is usually begun in a sanatorium and carried on at home after a sanatorium education. Here, too, begins that sanitary teaching of the patient which is so essential in preventing the spread of the disease. This education of the patient is dependent for its success on the nurse.

As an isolated instance, the hospital nurse with instincts of nursing proper does not enjoy her part in this program. It hurts her sense of her own value to have to act the part of policeman to people in apparent good health and with supposed common sense—to send them to bed for their rest hours, to watch that they do not overstep their prescribed amount of exercise, to keep them from remaining in their warm dressing room, where they are prone to gather, armed with a thousand prepared excuses.

But in an ideal training this course is not isolated. While gaining her knowledge of social service and district nursing, the pupil has been vastly impressed by the result of unhygienic living and weak will power, as evidenced by erratic ways of conducting life. She knows what these things do to human existence. She is lifted above the thought of self, to use her knowledge in place of the patient's ignorance, her strength for his weakness of will, her good nature for his moodiness; and reads for herself, too, advanced chapters on the power of tact and self-control. In all this she has the added stimulus of the physician's attention, for it is at this stage that, naturally, she has, not only his orders to carry out, but his most interested cooperation in the discipline of the ward, associated, as he is, with her in the hope of successful results of their united work. Here she gains a clear impression of the value of rest and of other sound measures, which are sometimes quite spectacular in their effects.

Also the care of the hopeful tubercular case is very similar to that of the ordinary convalescent. The latter is not found to a great extent in a large general hospital. He is hurried out to make room for more pressing cases. It is true that most nurses do not care for convalescent nursing on account of the lack of excitement; nevertheless the care of convalescents is distinctly the nurse's field. It is here that the busy doctor relaxes his oversight, and says to her, "My work is done; you finish."

The later stages of tuberculosis demand a fine variety of nursing. It is, in its truest sense, nursing proper; and only when a woman is her best self can she be successful in it. It is little understood how many forms of suffering may be present in these cases. The ubiquitous germ now has every chance to work its deadly will against a worn-out and beaten vitality. Almost any symptom may appear, according to the idiosyncrasy of the patient. Each new development is a test of the nurse's skill to relieve distress. All efforts are directed to the simple amelioration of symptoms. It is true that well-taught attendants of refinement and intelligence, recruited from the ranks of "arrested" cases, whose latent disease bars them from ordinary activities, are often invaluable in the care of the sick tuberculous. But it is a blot on our humanity if this care is un-

dertaken without the closest supervision of skilled nurses. These will not be forthcoming unless familiarity with the work and the meaning of it is revealed in their training, or at some later period. With most it has to be the latter, But why?

The answer is that the victim of pulmonary tuberculosis is seldom to be found in the general hospital. He is not wanted. The incipient case is out of place there, as the best results come from treatment carried out away from the city and the interference of friends. As for advanced cases, general hospitals certainly oppose every suggestion of undertaking their care. They increase the mortality rate; they are troublesome, expensive, and, worst of all, they are "uninteresting."

Assuming that the hospital contracts to care for the needy sick of the community, and to undertake the practical education of doctors and nurses along lines where the highest death rate points, it would seem that one way of fulfilling these functions would be to open tubercular wards. In one of the last publications of statistics, Miss Brandt says that "comparing tuberculosis with other diseases, we find that at the present time it is the most important cause of death in the United States."

In several states laws have been passed obliging counties to open hospitals for tuberculous cases, and in Massachusetts each city of over 10,000 inhabitants must provide hospitals for the accommodation of such patients. In some instances this has resulted in general community hospitals opening wards for pulmonary tuberculosis.

The most frequent argument against the introduction of tubercular subjects as patients in general hospitals is the fear of infection. That sounds not right. Where should there be less danger from this than in an institution guided by the highest medical skill and learning of the community?

But tuberculosis is not conveyed to adults unless the amount of infection is "massive." Contrary to prevailing ideas, it is not generally contracted by nurses from their patients. Dr. Trudeau stated that, in the thirty years since his sanatorium was opened at Saranac Lake, he never knew an employee to contract tuberculosis there. Nurses in such institutions are careful to avoid danger by teaching their patients not to be a source of danger. Indeed, the open-air work often improves the young woman's physical health, and, instead of being lowered, her resisting power is raised; for it is a fact that in a well-planned and equipped tubercular ward, during the warm weather, practically all the nursing may be done in the open air, and in winter a great part of it may be done there. As long as possible it is considered more satisfactory for patients to go to the toilet rather than use a bed-pan; so this source of danger is lessened. One of the primary rules is "to cover up your cough and sneeze; for if you do not, you spread disease." In well-conducted tuberculosis wards, nurses do very little handling of sputum boxes. As patients are taught that this is the one service they must perform for themselves if possible, it is not unusual for them, until the last few days of their life, to wrap up their own soiled gauze handkerchiefs and paper sputum boxes, ready for burning. They have been trained to do this conscientiously, and they prefer even in their weakness to keep on doing it.

As is reiterated so often, tuberculosis kills more people than any other disease. The economic loss to nations is solemnly, but futilely, computed by statisticians; the mental and physical suffering caused by it puts all calculations to scorn; yet the average nurse today declines to enter this greatest of fields. It is so "uninteresting," she says simply. The fault lies not with the nurse, but with her education. She enters the training school as so much plastic material. She leaves the hospital stamped by the impress of convictions acquired there. Indifference and aversion come so frequently from lack of understanding.

It is encouraging that a short course in social service or in district nursing almost always inspires an enthusiasm that illumines the whole of a woman's after-work. She has met facts face to face, and knows things about the sources of disease which her own good home or her hospital could never teach her; and it is the exception, rather than the rule, that such an education, carried on even for as short a period as can be spared from a crowded three-years' course, does not incline the nurse toward the broader fields of social service, school or factory nursing, sanitary inspection and tuberculosis work, rather than toward that gradually narrowing pathway of private nursing, which until a few years ago was the only thought of the great majority.

One of the most progressive training schools lately started a system of giving its nurses a little glimpse of social service at the outset of their career as pupils. Under the teaching of trained workers they get this experience immediately after their period of probation. Can there be a more excellent method of enlightenment as to the needs and larger opportunities of nursing work?

We arrive, then, at a starting point for this vital part of a nurse's education. The present standard is a three-years' course for all branches, and there is no widespread tendency to prolong it. Perhaps the first question to decide is whether the care of tuberculosis should be considered a "special" study any more than or as much as, the management of a laparotomy case. Let us rather regard it, in view of its mortality rate and for the reasons cited, as one of the essential bases of a broad and general training, which will fit young women for the kind of work our civilization today demands, and without which they are not qualified to practice their profession.

We will consider the minimum amount of time she should spend to accomplish this. After the probationary period, during which she has had some theoretical and technical teaching, and an introduction to ward work, we will hope that our pupil may enjoy at least two weeks of assisting and associating with trained social workers, just to serve as a keynote for tuning her ambitions. It will follow that the rest of her first year will be a busy one spent in the routine of the ward, her first night duty, and class work.

Let us hope that, early in her second year, for another two weeks she may for half of each day accompany sometimes the general district nurse and sometimes the tuberculosis nurse, according to a schedule; and for the other half attend and assist in the dispensary, where there are tuberculosis clinics once or twice a week. She will in this way see facts in their relationship to one another. Tuberculosis will stand forth in its true proportions and an indelible impression made of its gruesome havoc among young children.

The end of the second year, when her energies begin to flag, would be a fitting time for an affiliation course of two months in a good sanatorium. Much care is given to the sites of these institutions, and the scenery is often beautiful. Here the change to country life and the lighter physical work should give her strength for the last strenuous year. Now she is mentally equipped for understanding the system of "cure" as practiced in such a place. There is usually a hopeful, happy atmosphere in these sanatoriums for incipient cases. She should gain inspiration here.

Returned to her general hospital, which has a tubercular ward, she would later get a sadder experience in the care of those cases that have failed to resist the onslaught of the disease, and which now demand her tenderest services. This would give her that knowledge of the nursing of chronic cases of which she sometimes gets little. But she has many other things to learn. There is her operating room work, and there is that maternity training which perhaps, for real blessings, should take precedence of all. Four weeks spent on advanced tuberculosis, combined with her general knowledge, should be helpful in learning the phenomena of the disease.

So our nurse has used one month studying the rudiments of social, district, and dispensary work. She has spent three months on tuberculosis proper. These subjects have been taken alternately with dietetics, child training, psychopathic, maternity, and operating room work, besides the general work on the medical and surgical wards.

At the end of three years she should have gained a true perspective. She knows the outstanding faults of our present system of life; she knows something of the treatment of the ills which are the result of these faults; but, most important of all, she wants to teach humanity to prevent them. She wants to grapple with the problem. How will she do it? Why should she not be of increasing use and power in modern life?

Graduation is literally a "stepping forward." One step implies others to follow. In taking steps, let us not lose ourselves in bypaths, but keep steadily to the broad road if we would travel far.

SAFETY COUNCIL HAS BANNER MEETING

Over 2,000 Attend Detroit Convention and Great Enthusiasm Prevails

More than 2,000 representatives of industrial corporations attended the National Safety Council Convention at Detroit on October 17-20. There were 140 speakers at the meeting, 581 members attended the banquet on Tuesday night, October 17, and 8,000 people visited the commercial exhibit of the council.

The Detroit meeting was by far the best that the Safety Council has ever had, and some things were done that had never been attempted before. For instance, a comprehensive official commercial exhibit was one of the main features at Detroit and there were fifty-five exhibitors.

The meetings were held in the form of fourteen sections, and, with the exception of the banquet and smoker, one round table session, and the business meeting, there were no general sessions of the association.

The Health Service sectional meeting was regarded by everyone in attendance at the convention as one of the chief features of the convention, and the papers read before that section attracted very much attention. The program of the health section was as follows:

WEDNESDAY, OCTOBER 18—AFTERNOON SESSION

Report of chairman. Report of secretary. Reports of committees. Appointment of nominating committee.

ADDRESSES

The Scope of Industrial Health Service—Dr. Otto P. Geier; Discussion.

Health Education—Dr. L. G. Shoudy, chief surgeon Bethlehem Steel Company, South Bethlehem, Pa.

Physical Examination of Employees—Dr. Wilbur E. Post, chief medical adviser People's Gas, Light, and Coke Company, Chicago.

First Aid—Dr. J. C. Bloodgood, medical department, Johns Hopkins University, Baltimore, Md.

Occupational Diseases—Dr. E. R. Hayhurst, director Division of Industrial Hygiene, Ohio State Board of Health, Columbus, O.

Health Insurance—A. W. Whitney, general manager National Workmen's Compensation Service Bureau, New York city.

THURSDAY, OCTOBER 19—AFTERNOON SESSION

ADDRESSES

The Company Doctor—Dean Samuel S. Marquis, Department of Education Ford Motor Company, Detroit, Mich. Discussion—Mrs. Lillian Burt, American Issue Publishing Company, Columbus, O.

Employment, Medical Supervision, and Safety—L. A. Phelps, superintendent insurance and maintenance Avery Company, Peoria, Ill. Discussion—Frank Cheske, manager employment department Packard Motor Car Company, Detroit, Mich.

Industrial Hospitals and Dispensaries—Dr. R. C. Cabot, Boston, Mass. Discussion—Dr. T. R. Crowder, chief surgeon Pullman Company, Chicago; Dr. H. N. Torrey, surgical director Michigan Workmen's Compensation Mutual Insurance Company, Detroit, Mich.

Hernia—Dr. Jas. Burry, chief surgeon Illinois Steel Company, Chicago. Discussion—Dr. C. W. Hopkins, chief surgeon Chicago & North-Western Railroad, Chicago.

Dental Work in the Industries—Dr. Lee K. Frankel, sixth vice-president Metropolitan Life Insurance Company, New York city. Discussion—Dr. C. E. Smith, dental clinician B. F. Goodrich Company, Akron, O.

FRIDAY, OCTOBER 20—AFTERNOON SESSION

FOUR ROUND TABLE MEETINGS

(Thirty minutes' discussion of each topic. Each speaker to act as the leader of the discussion following his own address.)

ADDRESSES

Relationship of Health to Industry—Dr. W. A. Evans, Chicago *Tribune*, Chicago, Ill.

Medical Supervision of Workmen—Dr. Harry E. Mock, chief surgeon Sears, Roebuck & Co., Chicago.

Reduction of Health Hazards—Dr. Francis D. Patterson, chief division of hygiene and engineering, Pennsylvania Department of Labor and Industry, Harrisburg, Pa.

Standards of Industrial Hygiene—Dr. J. W. Schereschewsky, United States Public Health Service, Pittsburgh, Pa.

Report of nominating committee and election of officers.

The following officers were elected for the coming year: L. R. Palmer, Department of Labor and Industry of Pennsylvania, president; David Van Schaack, Aetna Life Insurance Company, first vice-president; H. W. Forster, Independence Inspection Bureau, second vice-president; M. A. Dow, New York Central Lines, third vice-president and director of exhibits; W. H. Cameron, who has been the motive power of the council since the creation of the organization in the office of secretary-treasurer, was given additional distinction by a change of title to general manager and treasurer; C. W. Price has been made field secretary of the council. Seventeen cities have made bids for the next meeting of the council, but the meeting place will not be decided for some weeks.

There were eighteen teams in the trials this year at Detroit, and an immense amount of enthusiasm developed among those who were working for the great silver cup trophy.

This is the first year that the National Safety Council had attempted an organized commercial exhibit, and it proved to be not only one of the most interesting features of the convention, but promises to become of overshadowing importance. The council did not conduct its own exhibit, but arranged with an organization whose business it is to conduct such affairs and the association received part of the profits from the exhibition. It is planned next year to conduct the commercial exhibit as a definite part of the council, the council to be responsible for the character of the exhibits.

The administrative staff of the National University Hospital of St. Louis has recently been reorganized, with Miss M. E. Hainsworth as superintendent; Miss Dora E. Carter, formerly of the Jewish Hospital, St. Louis, as night superintendent; and Miss Heffron, of St. Luke's Hospital, in the same city, as superintendent of nurses.

PHILANTHROPY AND THE PUBLIC HEALTH

Conducted by THE NEW YORK ASSOCIATION FOR IMPROVING THE CONDITION OF THE POOR.
BAILEY B. BURRITT, General Director.
WILLIAM H. MATTHEWS, Director,
Department of Family Welfare.
DONALD B. ARMSTRONG, M. D., Director,
Department of Social Welfare.

Please address items of news and inquiries regarding Philanthropy and the Public Health to the New York Association for improving the Condition of the Poor, 105 East Twenty-second street, New York City.

Indexes of Nutrition and Growth

BY FRANK A. MANNY,

Special Investigator Bureau of Welfare of School Children New York Association for Improving the Condition of the Poor.

In any situation involving the examination of a large number of individuals, it is very helpful to have some means of rough grading which will make it possible to concentrate attention on the cases having the greatest need. This is particularly true in the medical inspection of school children, on which so little has been done as yet to make a reasonable adjustment between the agencies employed and the scope of the problem. For instance, in the medical inspection work of a large city it would be of great service were we able to know the respective proportions of the school population, not only with reference to presence and absence of physical defects, but also to the type of care needed for those who require attention. In addition to this, it would be well to know in the case of those not needing care what percentage are in superior condition. Very little more time than is now given would be required to make a classification into the five groups given below, and on this basis intelligent work could be done in attempting to secure the facilities requisite for meeting the needs of the situation. The following grouping would prove an aid in this direction:

1. Excellent condition (a state of health that would be accounted "excellent" in favorable social conditions).
2. Good condition.
3. Defective, but can be cared for adequately under present home and school conditions.
4. Defective and requiring some degree of segregation for observation and control purposes, such as could be accomplished in a well-organized open-air or other special class room.
5. Defective and requiring such complete control as can best be given in an institution especially equipped for the purpose.

While no city is prepared at present to see that these three groups of physical defects are properly cared for, the knowledge of the nature and size of the various problems involved would have an immediate effect on the agencies already provided and lead to the establishment of others. Possibly the open-air class room could be made to serve as an observation station and clearing house for groups 4 and 5, and summer and all-the-year stations take care of group 5, whose members are now buffeted about among clinics, convalescent homes, two-week term fresh air camps and then go back to congest the special and ordinary class rooms, and prevent proper care being given to those who could benefit by them.

One department of a study of defective nutrition which has been undertaken by the Bureau of Child Hygiene of the New York City Department of Health and the Bureau of the Welfare of School Children of the A. I. C. P. of that city has been concerned with improved methods of diagnosis and classification. A comparatively slight modification of the methods of grading nutrition has within the present year doubled the number of children in the city schools, who have been brought under the care of school physicians and nurses.

The term nutrition is used in this connection to refer to that condition of bodily health which is the result of many congenital and environmental forces, and not merely to the immediate results of feeding; yet it seems fitting that the expression of this more general condition should center in a word indicating our main source of energy and development. There are few fields of medical activity more deserving of cultivation than that of the diagnosis of defective nutrition. We need for this purpose special sections of clinics and dispensaries in charge of experts who can give their major care to the problems involved. Boston and New York are making beginnings in establishing nutrition clinics.

Naturally, in this study the various attempts that have been made to work out indexes of nutrition and growth have been studied, and in the accompanying bibliography the more important references on the subject have been brought together. It has not seemed best in the space of a brief article to describe or evaluate the various experiments referred to. All that have been included have the common aim of working toward some measure which will serve, in a general way at least, to show standards of the condition of physical fitness and to select from a larger group those individuals who need special attention.

INDEXES OF NUTRITION AND OF PHYSIOLOGICAL DEVELOPMENT[1]

I. Weight and height.—Greenwood, pp. 8, 17-24, 77-95; Baldwin 1, pp. 60-62; 2, pp. 11-22; Cornell, pp. 601-602; Bryant, pp. 218-224.

II. Average of weight and height.—Greenwood, pp. 8-10, 24, 27-28, 34, 69-76.

III. Annual percentage increases in weight and height.—Greenwood, pp. 11, 21, 38-41, 89, 96.

IV. Ratio of weight in pounds to height in inches.—Baldwin, 2, pp. 11-22; Greenwood, pp. 10-11, 19, 37, 94-95.

V. Ratio of weight in kilograms to height in centimeters.—London, 1909, p. 31; 1910, p. 128; 1913, p. 117; Newman, 1911, p. 32; 1912, p. 30.

VI. Ratio of $100\frac{\sqrt[3]{W\ (Kg)}}{H\ (Cm)}$.—Greenwood, pp. 11, 19-20, 37, 94-95; Livi, II, 20-28; Montessori, p. 181; Newman, 1910, pp. 31-32; 1911, pp. 27-28; 1912, p. 28.

Newman, 1910, pp. 31-32; 1911, pp. 27-28; 1912, p. 28.

VII. Oppenheimer's formula.—London, 1910, p. 129; Newman, 1910, p. 32; Schuyten, pp. 51-53; Oppenheimer; Wimmenauer.

VIII. Stiller's signs.—Leipoldt; Stiller.

IX. Blood ptosis.—Crampton, references 9, 10, 11.

X. Physiological age.—Beik; Bigelow; Boas, references 5, 6; Crampton, ref. 12; Foster; Grady; King; Pryor; Rotch; Smith; Long and Caldwell.

XI. Coefficient of vigor.—Woolston.

XII. Older's formula.—Older; Wimmenauer.

XIII. Becher-Lenhoff index.—Krauss and Becher; Lenhoff, Mohr and Stachelin.

XIV. Dunfermline scale.—Mackenzie.

XV. Development and nutrition.—Schereschewsky.

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Note 1.—Dr. Greenwood's Health and Physique of School Children contains more material on the subject than any other single reference. He has applied several of the indexes to the records of the measurement of 800,000 British school children. The care which he has shown in previous studies is evident in this work, in which three styles of type are used to indicate various degrees of reliability in the statistics worked on.

Note 2.—For a simple scale, that prepared by the Carnegie Trust at Dunfermline, Scotland, seems to be most effective. It is now in use in several important investigations in New York city, and has been adopted by the department of health for the examination of all school children, classifying them into four groups, two of which include those whose defective condition requires observation and treatment respectively.

PHYSICIANS AND NURSES AS MISSIONARIES

Rockefeller Foundation Will Send Hospital Ship as Civilizing Influence to Head Hunters

The Rockefeller Foundation is fitting out a hospital ship for a five years' cruise among the islands of the Sulu Archipelago. The Foundation has learned that many of the Moros are suffering from skin diseases, malaria, hookworm, dysentery, and other ills which could be handled with success by skilled physicians. Head hunting tribes in the Philippines have been reformed largely by the application of education and medicine, with a little more of the latter than the former. The Foundation believes that the Moros, descendants of the Malay pirates, who have resisted every effort of the Spanish and Americans to civilize them, can be reached in the same way. In Mindanao and Jolo the Moros have been reached to some small extent by dispensaries, but the great bulk of the population stands in need of medical service.

The new Michael Meager Charity Hospital, erected at Texarkana, Tex., at a cost of $125,000, has recently been put into service. The institution was made possible by a bequest to the city of Texarkana from the late Michael Meager, a pioneer and railroad man, who was mysteriously murdered at a railway station in San Antonio, Tex., seven years ago. It will be conducted by the Sisters of Charity of the Incarnate Word, of Galveston and Houston, Tex., who have leased the building for five years.

A new $100,000 orthopedic hospital, erected at President street and Brooklyn avenue, Brooklyn, N. Y., by the House of St. Giles the Cripple, was opened October 1. The building, which is a handsome four-story structure of tapestry brick and of romanesque architecture, is arranged to accommodate 55 patients. Dr. B. B. Mosher is at the head of the medical staff. The House of St. Giles maintains a large establishment at Garden City, L. I., and the new hospital is an auxiliary calculated to meet a well-established need in the Brooklyn district for a hospital for crippled children.

According to an expert accountant employed to examine the books of the several Milwaukee county (Wis.) institutions, maintained at Wauwatosa, more than $80,000 has been saved in the last year by a change to the single board plan of management from the plan of having a separate board for each institution. The saving is credited to buying in large quantities, the elimination of overhead expense by combining the institution farms, and more comprehensive management generally. The old practice of transferring left-over appropriations from one year to another has been discontinued.

DISPENSARY AND OUT-PATIENT WORK

Conducted by MICHAEL M. DAVIS, Jr.,
Director of the Boston Dispensary.

Please address items of news and inquiries regarding Dispensary and Out-Patient Work to the editor of this department, 25 Bennett street, Boston, Mass.

Dispensaries Growing in the Southern States

A few months ago an account was given in this department of the growth of dispensaries in Memphis, Tenn., where the Associated Charities, under the leadership of Mr. J. P. Kranz, the general secretary, established a clinic, which in two years has grown to be a considerable size and to be an important factor in the care of the sick in that city.

MEMPHIS LEADS

Very recently the Associated Charities and the Medical School of the University of Tennessee have decided to affiliate in their dispensary work. All the technical medical work passes under the university control, while the social service work is all under the control of the Associated Charities. The two agencies are to work jointly on all questions of community needs. It is interesting to learn that this clinic had a total attendance last year of 6,000 patients, and reports that 80 percent of the patients were white and only 20 percent colored.

CHATTANOOGA FOLLOWS

One good thing leads to another. It is natural that in other cities of the South this example of leadership should find followers. In Chattanooga, Tenn., the Associated Charities, acknowledging its obligations to the dispensary at Memphis, has set under way a similar development. A statement from its superintendent, R. S. Hudson, may be quoted:

"Until about two years ago there was no dispensary or nursing work in the city other than that done by the Metropolitan Insurance Company. At this time we put on a district nurse. She visited only those families under the care of the association. About a year ago we began planning the establishment of a clinic and dispensary. For months we talked, pleaded, planned. After much discussion a group of society ladies became interested, and through them we organized the clinical department of our work.

"About April 1 of this year we opened the Chattanooga Free Clinic, which is a department of the Associated Charities. Serving this clinic we have a staff of sixteen physicians, changing the staff each six months, making a total of thirty-two physicians who are serving us. Each of these is serving without charge. In connection with the clinic we have established our own pharmacy, having found it wise to employ a pharmacist, who spends two hours each day in the dispensary. We have made up many of our prescriptions in bulk, furnishing each physician with the formula as well as a list of the drugs in stock, thus endeavoring to have them prescribe only such as we may have.

"The nursing service is not what we want yet. We have invited our general hospital to put, as part of their course of training for nurses, three months' service under this department of medical charities, and we have had two nurses from the senior class with us. One of them now expects to make district nursing her life's work. Our colored help we secure, as part of the training of the domestic science department, of the colored high school, having each girl detailed to come to the clinic, spending two hours per day learning the best way to care for a sick room, the simple measures in caring for a patient, etc. From this we have had one colored girl go into our general hospital in order to learn more, and plan for such to go to some hospital which has a colored training class.

"Our work is separate from our relief department, yet it is, in fact, a part of our organization. The finances of this department of medical charities have been raised very largely by the young society girls of the city. There is an organization of these young ladies, which gives each year some special charity play, netting something like $1,500 to $2,000. This fund is turned over to our department. We receive a small monthly appropriation from the city. The Associated Charities, out of its regular budget, cares for a nurse's salary. We are so closely related to the city, the Associated Charities, and the ladies' organization, that it is hard to tell just where we do belong.

"We have a governing board, consisting of representatives from our city and county boards of health, the medical society, and other organizations interested. This board, of course, leaves all administrative work to be done by this association. Our offices are located in the City Hall. We have been able to have the city build four or five rooms in the basement for the clinic, this, of course, being paid for out of the city treasury. We have, therefore, no light, heat, water, or rents to pay."

ARKANSAS GOES TO IT

Again, in Arkansas the city of Little Rock has taken a step closely paralleling that in Memphis. The City Hospital in Little Rock has conducted a dispensary for several years, but the medical department of the University of Arkansas started a dispensary two years ago, and this has grown so that it overshadows the older dispensary. With a progressive spirit at the helm, it has been decided to push forward those features of the clinic which were of special service to the community. An arrangement has been entered into between the university clinic and the United Charities' Association of the city by which the secretary of the United Charities Association takes charge of the social service department of the college. This autumn a new dispensary and clinic are to be built, and all of the clinics of one kind will be coordinated and will work under one administrative supervision. The United Charities have already conducted a baby clinic and an antituberculosis clinic, and these are to be combined with the other clinics in the larger unity which is now brought about. The United Charities provides visiting nursing and social service.

TEXAS, TOO

Moving again a step westward, developments in San Antonio and El Paso, Texas, may be noted. In San Antonio the Associated Charities has taken no official part, but under the department of health of the city a rapid development of dispensary service has been shown. Four years ago it was reported that there was an average dispensary clinic of about 30 patients per day connected with the City Hospital, and today the number of patients per day is three times as large, and new buildings for the hospital and out-patient department are under construction, wherein it is expected that the attendance will be still greater. Even in the temporary quarters which are now occupied the number sometimes reaches 150 in a day. This service is connected with that of the city physicians of San Antonio, who pay calls at home on patients who are too sick to come to the clinic and who are too poor to pay.

A new tuberculosis sanatorium erected at Wabasha, Minn., by Wabasha county, has recently been opened, with Miss Ruddick, an experienced tuberculosis nurse, in charge. The plant represents an expenditure of $40,000, of which the state contributed one-half. Persons living in the county and able to pay for treatment will be charged $7 per week; those outside of the county, $10 per week. County patients unable to pay will be admitted free, and the county will be reimbursed by the state to the extent of $5 per week for each such person cared for.

DEPARTMENT OF DIETETICS

Conducted by MISS LULU GRAVES.
Dietitian of Lakeside Hospital, Cleveland, Ohio.

Please address items of news and inquiries regarding Department of Dietetics to the editor of this department, Lakeside Hospital, Cleveland, Ohio.

Dr. Langworthy's Helpful Paper

We are very much pleased to be able this month to give to our readers Dr. Langworthy's paper. The work Dr. Langworthy has done and is doing in the office of Home Economics is so valuable that we are always glad to hear about it; his knowledge and experience are so great, and he is so conservative in his statements, that we like to hear anything he has to say about food or any of its phases. While this paper was written more specifically for the housekeeper, much of it applies equally well to the institution.

This department has tried to put emphasis on the fact that the preparation and cooking of food materials is of the greatest importance, and the manner in which this is done may add to or detract from the value of the finished product to a very great extent. Dr. Langworthy makes this point in a way that cannot be questioned, and yet he does not make the one in charge of the kitchen feel that its management is necessarily a burden.

His suggestions to housekeepers are just as applicable to one in the kitchen of an institution as they are to one in the kitchen of a home, and through it all we readily see the decided advantage of having an intelligent person control the feeding of our people.

Do not fail to read what Dr. Langworthy says about the attitude of the family toward the well-selected menu. If we could have the same care, attention, and intelligence given to our dietary department that is given to other departments in the hospital, and then have the same consideration and cooperation given to it that are given to the other departments, we would find hospital life much more satisfactory for everybody concerned.

Food Selection for Rational and Economical Living[1]

BY C. F. LANGWORTHY,
Chief, Office of Home Economics, State Relations Service, United States Department of Agriculture.

There are a number of factors which should be taken into account when one discusses diet with reference to its adequacy and economy, and to the satisfaction which it gives. Among these are a knowledge of local markets and standards of food quality; wise selection of food; preparation and cookery; and the planning of meals, or, as it is so commonly called, "menu-making." The last of these is by far the most important, and will therefore be discussed at the greatest length, though the others logically precede it.

By a knowledge of markets is meant not only knowledge of the location of butchers, grocers, and other dealers in food in one's neighborhood or town, but also a good idea of the reliability of the different dealers, the quality of the goods which they offer, the relation of the cash or credit system of selling to their prices, and other such things. To be complete, it should also include some understanding of the production and distribution of food materials; such information, for instance, as would lead the housekeeper to purchase local-grown goods when possible, not only because they may be fresher, but also because of the difference in their favor of transportation charges, and hence of price. With respect to the quality of foods, the housekeeper should know, for instance, how to distinguish old and young poultry, and tough, overfat, or overripe meats; she should know the relative merits of wilted and fresh vegetables, being able to tell when the former can be freshened or when they include too much inevitable waste to be economical. Other illustrations might be cited, but these are sufficient to show what is meant. A knowledge of markets and of quality of food products as related to final value calls for a wide range of information, much of which can be taught and some of which must be gained by experience.

Wise choice of foods involves possession of other lines of information and experience, which enables the housekeeper to purchase to good advantage. She must realize that out-of-season foods, like strawberries or green peas in January, will be more expensive, and no more nutritious, than the same foods in early summer, while foods which are uncommon at all times, like fresh mushrooms, will be more expensive than cabbage or carrots, which they closely resemble in nutritive value. She may select according to her circumstances, but she should do so "with her eyes open," and not in the belief that the superior virtues belong necessarily to the rare or the unusual.

Then, too, one must take into account the quantities which can be handled advantageously in the home. It is the part of wisdom to purchase in quantity those supplies which can be easily stored and kept without deterioration, while such purchase would be decidedly unwise in the case of perishable foods, or if there are no proper storage facilities. One must take into account further the ability of the person who cooks to make acceptable dishes from the foods supplied. If she does not know how to make a palatable pot roast or similar dish from a tough cut of beef and does know how to broil a steak well, there may be some economy in choosing the steak. The suitability, with respect to the needs of the individual family, of the food purchased is another important consideration. Thus, a good deal of waste comes from the purchase of meats which give too large cuts for the family tastes. For instance, if the chops purchased are so large that the individual portion which would be served (usually one large or two small chops) is larger than the eater's average appetite, part of the meat may be left on the plate and thrown away. The housekeeper, therefore, should take pains to provide materials which can be served in portions to "fit" the family tastes.

The relative amount of time, labor, and fuel which is required in preparing foods for the table has a decided influence on actual as compared with apparent cost. The busy housekeeper who wishes to prepare breakfast quickly may recognize this when she pays a higher price per pound for some ready-to-eat cereal, which at most requires only to be warmed before serving, instead of buying a breakfast cereal costing less per pound, but which must be cooked for several hours. If she prefers a cereal which

[1]By permission of the Scientific Monthly, where this valuable paper was first published.

needs longer cooking, she should know that she can begin to cook it when the evening meal is prepared, and finish it either in the fireless cooker or while she is preparing breakfast the next morning. The more she appreciates and acts on such considerations, the more likely she is to provide a satisfactory diet which is also an economical one.

Cookery and other matters pertaining to the preparation of food for the table are particularly important from the standpoint of economy and satisfaction. Here, as elsewhere, knowledge of the "art of dressing food," to use an old phrase, is very important. It may be learned by experience (usually at much cost), or from the mother or or other members of one's family, as has been the rule in the past, or, like other arts, it may be learned in school, as is increasingly the case under the changed conditions of the present day. The housekeeper needs such knowledge, whether she applies it herself or whether she directs some one else. If, in addition to the art of cookery, she understands relative food values and other technical matters pertaining to food and its uses, her task of providing a rational diet will be the easier.

She should not be parsimonious in her household management, neither should she be extravagant, and to this end she should understand and practice rational economy. She must realize, for instance, that a large amount of garbage means needless waste, due to carelessness, to excessive purchase, to overgenerous service, to poor cooking, or to menus which do not please the members of the family. She should be familiar with economical practices and usages and with practical ways of saving materials, having wisdom to make use of those which are really worth while and to avoid those which merely seem economical. As an illustration, it is possible to be economical in the use of fat and yet keep up a good standard of living. This implies careful use of the fats purchased for the table and for cooking, and also the use of fats commonly thrown away. The proper "salvage" and use of chicken fat, rendered suet, bacon fat, and other fats commonly wasted, which are, so to speak, byproducts of raw materials or of cookery, will enable her to economize in the amount of butter and other fats purchased as such. She may take a hint from the commercial baker, who realizes that stale bread and cake, dried and ground, can replace about one-fourth of the flour used in making many kinds of cookies, cakes, and other foods. She must appreciate the importance of careful preparation of food materials, and recognize that thin paring of fruits and vegetables is less wasteful than careless paring, and that soaking dried foods, like navy beans, dried peaches, etc., before cooking them economizes fuel by lessening the time of cooking required. She must know that it is possible to make palatable, yet economical, dishes by extending the flavor of some more expensive food through a fairly large proportion of a cheaper food of blander flavor, as is done when a small amount of meat is combined with a large proportion of potatoes, carrots, and other vegetables in making a meat stew. On the other hand, she should see that it is poor economy to use a pint of cream and several eggs to save a cupful of cold boiled rice or farina which might better go into the soup kettle.

The last factor—namely, the planning of meals—is very important and places a great responsibility on the housekeeper, since it determines whether the diet provides the body with all the materials it requires. It is a problem which is often well solved by the housekeeper on the basis of empirical or other knowledge, but which is almost certain to be wrongly solved if such knowledge is lacking; certainly it is one regarding which there is much ignorance and many misconceptions. At one extreme are those, and they probably represent the great majority, who consider their meals only in reference to palatability—a selection which may be rational if they have learned good food habits, and fortunately there is much empirical teaching on food habits which is sound. At the other extreme are those who heed all the fantastic statements they come across regarding specific medicinal or even semi-magic virtues ascribed to certain foods, who place their hopes in some particular type of food materials, or who fear lest they may suffer by "eating incompatibles," and so on through the long list of dietetic fads and fancies. Many, however, are not long deceived, their common sense warning them that, if such doctrines were true and important, the race could hardly have survived its alleged dietary indiscretions. Between these extremes stand a rapidly increasing number who seriously desire to understand and apply the principles of dietetics as they are now expounded by the more generally accepted authorities.

A fundamental principle is that the diet, considered for any reasonable length of time, must supply a great variety of chemical substances combined in different ways for the "structural" needs of the body, and also must supply it with energy-yielding substances with which it may perform internal and external work. It seems apparent that a varied diet, reasonably generous in amount, is more likely to meet the body needs than one restricted or unvarying in its makeup or scant in quantity. The more knowledge and judgment used in its selection, the better the diet is likely to be.

In discussing diet, the expression "balanced ration" is often used, no doubt because it occurs so often, and to such good purpose, in discussions of animal feeding. Those who employ the term should remember that the feeder of live stock not only selects the kind of food which the horse or the steer is to eat, but measures the quantity. The housekeeper, the physician, and the nurse do this for the infant, and sometimes for the person who is ill or otherwise compelled to live under circumstances in which the diet is definitely controlled. The housekeeper does not do this when under normal conditions; she provides a meal for her family to select from and eat of at will. Such freedom of choice is compatible with rational living, and should for the best ends be accompanied by rational food habits which can be early taught in childhood, or, if need be, acquired later in life. Therefore, the term "balanced" is, and is likely to remain, inaccurate for general discussions of dietetics, and the term "well-selected" should be given the preference.

The character of the meals which the housekeeper will provide is determined largely by racial and regional influences, and also by fashion. In the United States the general character of the diet is like that in the British Isles, with many minor modifications contributed by the other races which go to make up our population. Thus, we have meat, with potatoes and one or more vegetables, and a dessert for the simple dinner, with the addition of soup and salad for a more elaborate one. As an example of foreign influence may be cited the serving of macaroni and cheese as one of the vegetables at dinner, or the use of sauerkraut with pork.

The influence of fashion or custom is shown in such a matter as the preference for a meal of a given type; for instance, the continental breakfast of rolls and coffee in comparison with the English breakfast of jam, toast, eggs or meat, and tea; of the American breakfast, of which fresh fruit and breakfast cereal so commonly form a

part, usually accompanied by more hearty foods. We may prefer one type or another because we have always known it or because we have learned to like it, but the whole matter is chiefly one of custom, and it is the same way with other meals. Fashion also governs quite largely the choice and the combinations of foods for a given meal; for instance, there is no inherent reason why peas should be served instead of string beans with lamb, or why we should serve apple sauce with pork and current jelly with mutton rather than the other way around. We instinctively follow conventions, but we must not overlook the importance of so following our preference that we get distinct variety from meal to meal and from day to day. The housekeeper who thinks about such matters will realize that serving sweet potatoes, white potatoes, Hubbard squash, and boiled rice at the same meal shows "poverty of invention," since she will realize that they are somehow alike, even if she does not know that all are characterized by the presence in relatively large proportion of carbohydrates. Nor would she be happier in her choice if she served such a combination of green vegetables as spinach, asparagus, cabbage, and cauliflower, since all are similar members of the green vegetable group. Most palates would be better pleased if she had scattered her dishes through several days, having white potatoes and spinach, for instance, on one day, asparagus and sweet potatoes on another day, and so on through the almost endless number of combinations of which the food list permits, and had included in the menu such other types as seed and fruit vegetables (green beans and peas, tomatoes, cucumbers, green corn, melons, and so on). Not only would this be more pleasing to the person with discriminating taste, but it would also be more desirable from the standpoint of the rational selection of foods, since a person would be more likely to secure all of the food constituents which he needed from a mixed meal than from one of such sameness.

Furthermore, a survey of the available data on the subject of meals leads us to believe that it is possible to classify them into two distinct types (though admittedly this is only a very rough division)—namely, those which, for want of a better term, may be called the "hotel" or "restaurant" type and those which may be called the "family" type. In the former the principal dish chosen is likely to be a meat order, which may carry with it a moderate serving of potato, and which is supplemented chiefly by bread and butter and possibly dessert, and less often a green salad, but which usually does not include a generous order of vegetables. In the second, or "family" type of meals, the amount of meat served is likely to be smaller and the proportion of vegetables served very much larger, with dessert and bread and butter as well. If we follow the rapidly gaining theory that foods like meat, which yield an acid residue when assimilated, should be accompanied by a generous amount of foods like vegetables and fruits, which yield a distinctly alkaline residue when assimilated, the wisdom of the so-called household type of meal is apparent. We shall find also, if we consider its chemical composition and energy value, that it is more likely than the other type to supply in reasonable proportion the necessary building and repair material and the energy-yielding substances required.

The number of meals taken in a day is significant chiefly as a convention or fashion. With the reasonably generous breakfast of the American family, the lunch or supper is likely to be moderate and the dinner generous. On the other hand, it is natural enough that, with the light breakfast of continental Europe, there should go either the second breakfast and supper or the hearty lunch as well as the dinner. Apparently the number of meals taken does not greatly influence the amount eaten per day, for the man who goes without his breakfast is very likely to make up for it at dinner or supper, while the man who eats an early breakfast and then a second breakfast will be likely to take a moderate lunch or a light dinner. Good food habits do not permit of gluttony.

The housekeeper who tries to provide a varied menu should realize that, in general, variety can be secured in two ways—either by using a considerable number of dissimilar food materials or by using varied methods of cookery with a smaller number of food materials. While both methods have their uses and both should be taken advantage of, it is well to remember that the first is the one more likely to provide variety from a chemical standpoint.

As regards the amount of food required, satisfaction and rational living demand that the amounts provided should be adequate, while economy demands that the amount should not be so great as to lead to overeating or to needless waste. It may seem generous to serve a person more than he can eat, but it is not wise, since it means material left on the plate, only to be thrown away. It is better to give a smaller serving and offer a second helping. Proper care in such matters as well as in the selection and preparation of food should mean a considerable saving. The possibility of saving is made clear by the fact that the waste observed in studies of several hundred American families ranged from practically nothing to 20 percent of the food purchased.

It is also apparent that good dietary habits are important. These can be taught and are best learned in childhood. We should not allow children to grow up with whims, fancies, and aversions respecting their food. They can be taught to like all the ordinary foods, and this should be done unless it becomes apparent (and this rarely happens) that some article of diet is distinctly harmful because of an idiosyncrasy toward it.

[To be concluded in December issue.]

White Bread as Food

DR. J. A. WESENER, Columbus Laboratories, Chicago.

An article appeared in the New York *World* under the heading, "Don't Feed Him White Bread." This, like many articles and stories in the newspapers, was evidently intended to be more or less sensational in its character, and without regard to actual truth, or more than superficial facts.

The article contained the following table, which is supposed to give the comparative food values of the several articles named:

Barley bread	83.3
Whole wheat	81.7
White	54.9
Rye	57.2
Swedish speise bread	87.0
Zwieback, white	85.2
Zwieback, rye	83.7
Macaroni	86.9
Corn	80.0

It will be noted that in this list white bread is put the lowest, rye bread slightly above it, bread from barley much above it, with corn and whole wheat meal near the latter. There is probably a nearer approach to the truth in the value given to zwieback, Swedish speise bread, and macaroni (the latter meaning, of course, the material as it is purchased, for these in their preparation are made

nearly free from water, and contain little beside the dry food matter).

White bread, as it is ordinarily made, contains from 35 to 45 percent water, and, if it did not contain that water, it would be dry and harsh to us, and wholly unsuited for use in the manner in which bread is ordinarily consumed. We know it is there when we purchase the bread, and the price is made accordingly. We know zwieback and macaroni to be practically free from water, and purchase them at a correspondingly higher price, for we ourselves can supply the water at a low cost. They are distinctly different from bread, and, for the most part, they are used in a different way. Swedish speise bread, or hardtack, is useful in war times, but is not much sought after by those who can get white bread to eat.

The composition of any prepared article of food depends on the composition of the materials put into it. The composition of wheat bread, rye bread, corn bread, or bread from barley depends for the most part on the composition of the flours from these grains. The following table shows the relative composition of these several flours, and also that of oatmeal, which is largely consumed in this country. It is not generally made into bread, but is consumed in another manner. Oatmeal is especially rich in fat and protein because it contains the entire kernel of the oat after the husk has been taken off. The several flours given do not contain the bran and the germ, so that a considerable part of the proteid matter and the fat has been removed:

	Wheat	Rye	Corn	Barley	Oatmeal
Moisture	13.00	13.00	13.00	13.00	8.00
Ash	.45	.75	.50	.90	2.00
Protein (gluten), etc.	.50	7.00	6.00	7.50	15.00
Fat of oil	1.10	.85	1.30	.90	7.00
Crude fiber	.25	.40	.80	.70	.90
Carbohydrates (starch), etc.	74.70	78.00	78.40	77.00	67.00

An explanation of the terms used in the table showing the composition of these different flours may be necessary to an understanding of them on the part of some readers. All flour, however dry, contains some moisture, the average amount being about 13 percent. The amount of moisture is subject to considerable variation, and the percentage of actual food constituents of the flour varies with the amount of moisture which is present. In the analyses given, which represent closely the several articles as they are to be found on the markets at the present time, the amount of moisture for all is taken to be the same. The ash represents the mineral matter, the amount of which varies with different flours, and is always less in the better grades of flour than in the poorer grades. It is also less in all grades of flour than it is in the entire grain, for the greater proportion of the ash occurs in the bran. It is the bone-forming constituent of the food. A certain amount of it is essential to the growth of the animal, but in most all foods there is an amount far in excess of what is required by the animal or person consuming the food. Protein is that constituent of foods which has sometimes been called the muscle-producing portion of the food. Lean meat is made up almost wholly of protein and water. The white of an egg is protein and water. The best representative of protein which we have among vegetables is the gluten of wheat flour. All natural vegetable foods contain a considerable proportion of protein. The amount varies with the kind of article, and with the special conditions under which it has been produced. The gluten of wheat flour varies from 6.5 percent to 12 percent or more. It is highest in the hard winter and spring wheat flours, and lowest in the soft winter wheat flours. It is also higher in the low grades of flour than in the better grades. It is possible there is no other grain which is subject to such great variations in the amount of protein which it contains as wheat, and especially wheat flour.

All the grains contain some oil. The amount in wheat flour is about 1 percent. The amount in the entire grain is considerably above this. The woody matter of the bread is separated out in the course of analysis as crude fiber. It has comparatively little food value, and is not very desirable in most foods which are designed for man. A certain amount of crude fiber is essential for the domestic animals, especially cattle and horses, as it gives bulk to their foods.

Under the name of carbohydrates are grouped together certain other constituents of food which are not classed among the ash, protein, fat, and crude fiber. In the flours these consist chiefly of starch, with a little sugar. Those constituents of vegetable foods which are considered to be of most value are protein, oil and starch.

In wheat meal (sometimes called graham flour) there is a considerable amount of woody matter, and consequently much more crude fiber than in the flour. From 15 to 20 percent of the wheat grain is bran, and bran contains a very large amount of indigestible matter. Part of this separates out as crude fiber in the process of analysis, and part of it separates out as carbohydrates other than starch. There is also a larger proportion of protein in the whole wheat than in the white flour, and more mineral matter. The fiber portion of the bran is of little value as food. Those carbohydrates of the bran other than starch and sugar are of comparatively little value as food. Much of the protein matter is so incorporated in the woody fiber that it is not digested and made available for the use of the body. The amount of ash is in excess of that required for building up of bone and for supplying other necessary minerals to the body. For these reasons a large portion of wheat meal is not suitable as a food, and it is this very material which is removed in the process of making wheat flour. Not over 90 percent of the dry matter of wheat meal is digestible and a source of nourishment to the body. Nearly the whole of the dry matter of wheat flour is available for the use of the body. This is true not only of the white flour of wheat, but also the white flour of rye, corn, barley, oats, etc.

The amount of oil and mineral matter in the flours of the different grains does not vary greatly. The chief difference in their composition is seen to be in the relative amounts of protein and starch which they contain. It will be seen from the above table of analysis that wheat flour contains much more protein than either rye, corn, or barley. The bread flours—namely, the spring wheat flours and the hard winter wheat flours—nearly always contain upward of 10 percent protein. Protein has been looked on as one of the most valuable constituents of food, because many of the foods which we consume are comparatively poor in this constituent, and because the body requires a certain amount of protein to keep it in proper nourishment. It has been considered that the proper amount of protein in proportion to the carbohydrates is about 1 to 6, varying for different individuals with the character of work which they are doing and other conditions. Wheat flour gives the nearest approach to this proportion of any of the grains. It is true there is a larger proportion of protein in the bran, but, as stated above, a considerable portion of this is not digestible. We may also add that many people do not like brown bread, and that the coarse material of the bran produces a mechanical irritation of the intestines, which makes it unsuited as an extensive article of food.

White flour has been the predominant article of food among the most civilized people for a long time, and undoubtedly will continue to be. Any deficiency in protein or in any other food constituent is supplemented by the use of other foods. Meat and cheese supply protein and fat. Beans, peas, and vegetables of this character are rich in protein, containing often as much as 20 percent of their entire weight. Eggs also are made up for the most part of protein. Butter supplies any additional fat that may be required, and by the use of these articles, in connection with the bread, the body is well supplied with nourishment in which the proteids and carbohydrates are held in proper proportion.

Where bread is made with milk, its food value is materially increased over what it is when made with water. Bread and milk is a healthful and nourishing diet, but we would soon tire of bread and milk alone, just as we would of any single article, however perfect it might be as a food. The almost universal inclination of man to select a diet which consists largely of white bread may be taken as strong proof that it is a valuable and desirable article to put upon our tables.

A Chef on Unwholesome Meats

Meat may be injurious to the health of the consumer from many causes, such, for instance, as: (1) it may be the vehicle through which pathogenic organisms are introduced into the body; (2) it may contain the intermediate forms of certain parasites capable of developing in the body; (3) it may give rise to ptomaine poisoning.

Among the infective diseases which might be transmitted by the eating of contaminated meat, tubercle, on account of its prevalence, must take the foremost place. Tuberculosis is rarely found in the muscles, but, if not discovered there, nevertheless in apparently healthy flesh the lymphatic glands which lie embedded in it are very often affected with this disease, and it is doubtful if the process of cooking such meat is sufficient to destroy the tubercle bacillus in such positions. This organism does not possess a very great degree of resistance to high temperature, and the higher the degree of heat the shorter time of exposure required to destroy it.

Cysticercus cellulosea in the pig and *cysticercus bovis* in the ox may, if the flesh of these animals be eaten in a raw or imperfect condition, develop into adult tapeworms in the human intestine. The pig sometimes harbors the *trichinella spiralis*, which gives rise to trichinosis if ingested in the live condition, but, when meat is properly cooked, the danger from these parasites is slight.

Meat poisoning occurs as the result of some abnormal condition of the animal before slaughter.

LEON PESCHERET,
Chef Cook County Infirmary, Oak Forest, Ill.

Miss Eckman's New Field

Miss Rena Eckman, dietitian at the Massachusetts General Hospital for several years past, has resigned her position and is to spend the coming year taking a course at Teachers' College, Columbia University. Miss Eckman has done much valuable work in dietetics, the results of some of which have been published in THE MODERN HOSPITAL. She is now to have some new experiences, and opportunity to go on with a new and perhaps broader viewpoint in mind.

It is greatly to be hoped that Miss Eckman will give the readers of THE MODERN HOSPITAL the pleasure and profit of following her in her new environment. She should have much to write about that will be worth while.

REAL COMMUNITY HOSPITAL SERVICE

West Virginia Institution Carries Out Health and Emergency Work at the State Fair

For two years past the Ohio Valley General Hospital, Wheeling, W. Va., has conducted an emergency hospital and rest room at the West Virginia State Fair, which is held early in September at Wheeling. This year, although the work was conducted on a scale much larger than last, the tents provided as rest rooms were always crowded, and the emergency room was used repeatedly. The president of the hospital's alumnæ association was in charge, and, with the assistance of six or eight other graduates, was kept very busy.

In the rest room, bassinets and cribs were provided for the babies and young children, with a trained nurse in charge, so that the mother might check her child and enjoy the fair unhampered. In addition, certified milk was provided free of charge, and an attempt was made to instruct the mothers in the proper care of the children as to feeding, clothing, etc., and, to aid in this, the walls of the tent were hung with charts demonstrating various methods of feeding and containing catchy mottoes.

In the emergency room such cases as the following were treated: 2 sprained ankles, 1 torn ligament and dislocation, 9 fingers dressed, 1 fractured shoulder, 2 head cases (stitches taken), 12 hand dressings, 1 sprained shoulder, 3 massage treatments, 1 case delirium tremens, 20 cases of headache, 1 epileptic, 3 cases of fatigue, 3 lost children.

Rest room and emergency ward conducted by the Ohio Valley General Hospital at the West Virginia State Fair.

A branch rest room was conducted in a distant part of the grounds, although no emergency work was attempted at this point. The whole scheme was undertaken to show the public that the hospital is ready at all times to assist in matters of health, and was on the job in an emergency. There was absolutely no charge for any of the work undertaken. This brought pertinently to the minds of a large number the fact that the hospital was doing constantly a large amount of charity work, and will result in a more cordial reception of the hospital's appeal for funds for its charitable expenditures. This hospital has appealed so often to the public for large sums that it was felt this was an opportunity to show the public it appreciated the help which it had received, and in return was ready to assist to the limit of its ability.

Judging from the many hearty comments, not only from the patrons, but from the directors of the fair association as well, the venture was a real success, and will doubtless be repeated each year with an increased space and equipment.

PLINY O. CLARK, Field Editor.

INDUSTRIAL WELFARE

WORKING ON THE UNCUT DIAMOND

* * *

Saxon Mills, Spartanburg, S. C.

BY MARJORIE A. POTWINE.

Welfare work will bear permanent results in the next generation and in the maturity of the youth of today. The majority of middle-aged mill operatives and homekeepers in a typical southern mill village are of country and mountain stock, bred in an environment that has molded inflexible character, and physically developed where sun and storm, muscular work and simple living, have toughened muscles and hardened constitutions to meet the demands made by that life.

Such a livelihood may be irksome and unremunerative, pregnant with illiteracy and barren of social opportunity, but certain it is that it develops the physique and strengthens it to cope with the conditions among which it must exist. I do not speak in the extremes of the clay-eater and mountain clan; I confine myself absolutely to the typical mill operative, who has come from an impoverished rural district to secure ready cash for his labor and to give his family the advantages of an organized community life. With this man and his wife, welfare work accomplishes little of permanent value. Their habits are as fixed as the rocks among which they were formed, and, while many of their methods may be antiquated, for years they have known how to do those things essential to feeding and clothing the body. Most of them go a few steps farther; they take pride in their milk and butter, they know how to garden well, they air the bed-clothes daily and plant roses by the doorstep. In their rural lives there has been time for these things. In the busier lives of their children as mill operatives there is little chance or interest for gardening or homemaking, unless this interest is stimulated by some agency such as welfare work.

I believe now is the time to take hold of that situation. Due to the recent introduction of the cotton mill industry in the South, most of the youth here are children of the sturdy country stock I have mentioned. The need for and the response to welfare work among the younger generation would formulate into a beautifully balanced ratio. By need of welfare work I do not mean that here exists poverty, sickness, degeneracy. I mean that this is the very time to prevent race deterioration, and to develop this good old native stock through education, recreation, and sanitary living and working conditions into a strong, well-balanced working class, typically American, and holding dear the traditions and the interests of no country other than America.

I believe the following is a sound theory to work on if that is to be accomplished: better bodies make better minds, better minds make better morals, and the three developed in combination are the strongest safeguard to the race.

Direct work for health is the purpose of the homemakers club, an organization of married women who take special interest in the welfare of the village. They report cases of illness, offer aid, support the community linen chest from loans that are made in cases of need, and secure lecturers to address them on questions of health.

The company has a first aid to the injured outfit, but up to the present time there have been few emergencies demanding its use.

Living conditions and health guidance must be supplemented by wholesome exercise. Outdoor recreation is a specialty at Saxon Mills. There is volley ball for every one, and the enthusiasm of the girls and women is astonishing. Field hockey was played all winter by the men, but now baseball has taken its place. Croquet, tennis, basket ball, gardening, swimming, and the girls' walking club will fill the summer program of outdoor activities. The playground surrounds the community building, the first floor of which is used as a school house, and their proximity to the mill gives everyone an opportunity to use them. They are lighted at night for two hours' enjoyment, and I believe that time in the open, exercising and playing, makes the operative a happier and better equipped individual, whose night's rest is better because of his recreation.

The community building is fitted to meet all the social needs of the village. In it are an auditorium that seats about 500, a lodge hall, a library of 625 volumes, a reading room, a game room, a sewing room, and a basement fitted with showers and room for domestic science laboratory. Lectures, entertainments, game night, and sewing classes are well attended, and evidently much appreciated.

EMPLOY REGULAR VISITING NURSE ASSOCIATION

* * *

Simmons Hardware Company, St. Louis, Mo.

Mr. R. H. Burton, of the company, furnishes the following epitome:

In our establishment in St. Louis we conduct a jobbing business, and we are fortunate in not having hazardous employment, our accidents consisting principally of nail punctures. Our house physician, Dr. George W. Koenig, has his office within a short distance. Through the munificence of Mr. George W. Simmons we have coupons entitling persons to treatment in the Barnes Hospital, of this city, and on several occasions we have sent our people there for medical treatment, but these cases did not arise from any accident.

We have an emergency ward, where an employee may lie down and rest if he or she should be taken ill from any cause, and in such case prompt attention is furnished by our house physician.

Our ladies' lunch room is conducted on a cooperative plan, and most of the girls bring their lunches from home, to which they may add coffee, which is sold at actual cost —2 cents per cup. Our matron also provides other edibles, such as sandwiches of various kinds, which are sold to the young ladies at cost. Some of the young ladies are quite regular in their attendance in our lunch room, but this is not obligatory, and they go up town for their lunches quite frequently, our experience being that our lunch room is used mostly during bad weather.

Our employees have formed a loan association for the purpose of having a fund that may be available in case of any emergency that may cause an employee to borrow money. Applications for loans are made in writing, and are passed on strictly according to merit.

If any employee is absent more than one day without

notifying the company, we investigate the cause, but we have no reason to employ a visiting nurse, as we have an arrangement with the St. Louis Provident Association whereby a visiting nurse will be furnished if deemed expedient, and there are one or two old people pensioners whom we give attention through the visiting nurse of that association. Our experience has shown that no specific rule can be followed in treating cases of sickness or distress, as each case must be treated according to its merits.

EMPLOYEES MANAGE THEIR OWN WELFARE

* * *

Gordon & Ferguson, St. Paul, Minn.

In a large manufacturing plant like that of Gordon & Ferguson, where about 500 expert operators are employed in the manufacture of furs, mackinaws, and sheep-lined coats, adequate welfare work is a paying investment from the standpoint of more efficient work on the part of the employees as well as from the viewpoint of their physical and moral conditions.

The employees of this firm have maintained a benevolent association for a number of years. The association is managed by employees, and is supported by small monthly assessments, with nominal assistance from the firm. It pays sick and death benefits, and is in a very prosperous condition.

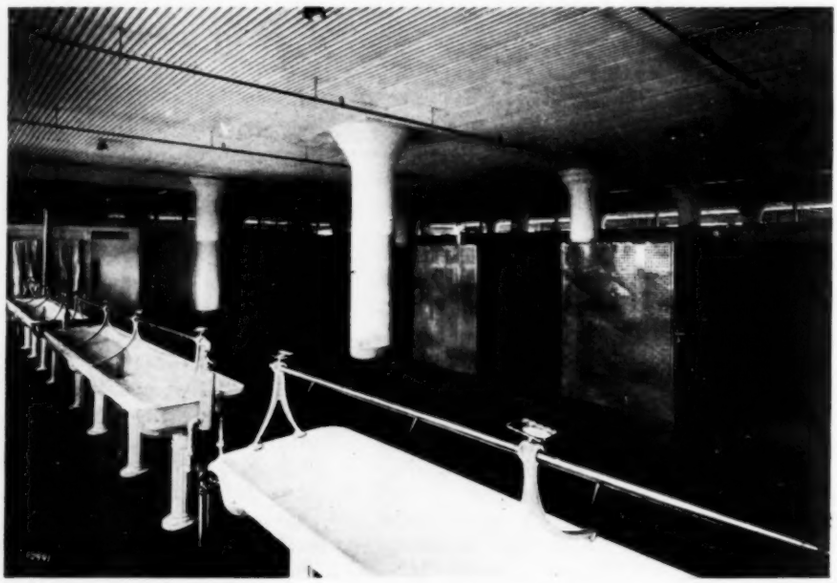


Fig. 1. Gordon & Ferguson, St. Paul. Corner of one of the retiring and locker rooms.

When the firm planned its new building a few years ago, the needs of the employees were carefully considered and adequate space was provided for welfare work. In arranging the factory floors, the matter of light, air, and space was given special attention with the idea that men and women working under proper hygienic conditions, with plenty of room and the best light and ventilation, could attain the highest efficiency in their work and remain well and be happy. Space was provided for retiring rooms, with the best modern sanitary equipment, and also locker rooms, in which each employee is supplied with an individual steel locker. A small rest room, with necessary hospital supplies, was set apart for emergencies, and we are happy to state there have been very few occasions when its use has been necessary.

The cafeteria and lunch room is a large, well-lighted and ventilated room, and is also used as an assembly and recreation room, being furnished with a piano and well-selected branch library. The cafeteria is operated by the Employees' Mutual Benefit Association, which buys its supplies and conducts the cafeteria as any similar well-managed enterprise is operated. A competent cook and assistants are engaged, and some of the factory girls "help out," with suitable remuneration. The equipment of the cafeteria is complete, and was installed by the firm and at its expense. Light, heat, and cooking steam is furnished to the association gratis, so that it is able to serve good, wholesome lunches at a very low charge. Any profits that may accrue revert to the association's general fund.

The firm found that the best results are obtained by permitting the employees to manage their own welfare work, giving assistance and guidance when needed and asked for, but allowing the employees to conduct their affairs after the proper equipment with which to work has been supplied.

REQUIRE MANY WELFARE FEATURES

* * *

Merck & Co., New York City

The company, manufacturing chemists, furnishes the data for the following epitome:

Our requirements are such that we find it necessary to make use of many welfare features, each one to a limited extent rather than to concentrate on any one feature extensively, and we are obtaining results that are highly satisfactory.

We are well organized into companies for fire protection and fire fighting. Our buildings are, of course, in addition provided with the latest devices for preventing and extinguishing fire. We have periodical inspections by our engineering force of all our machinery, elevators, general equipment, and all safety appliances, which includes inspection of all our fire fighting outfits as well. This inspection feature we regard as important. Our machines, pulleys, wheels, belting, etc., are provided with approved safety appliances. We have warning signs along our roads for the guidance of vehicles and pedestrians. Our employees are required to obtain written permission before entering rooms, tanks, etc., that might possibly be filled with objectionable odors or vapors. Each department is provided with emergency medicine cases for the purpose of rendering first aid in minor injuries. We maintain a first aid room completely equipped to furnish first aid and relief to the injured or sick. Suitable garments are provided for the protection of employees according to the nature of their work, which also aids in maintaining sanitary conditions for our products, and we endeavor to encourage cleanliness. We supply individual drinking cups, dining and rest rooms for women, lunch room for men, and lockers for all, and for recreation we furnish baseball grounds, tennis courts, etc.

The Frances Berrien Hospital, Rome, Ga., is having plans drawn for an additional story to its present building. The improvements, which will cost about $25,000, will include a new operating room.

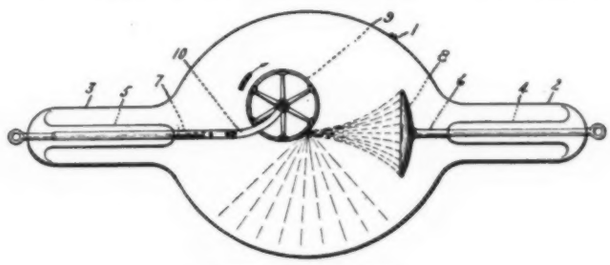
NEW INSTRUMENTS AND EQUIPMENT

VINCENZ MUELLER, Technical Editor.
GEO. W. WALLERICH, Associate Editor.
Please address items of news and inquiries regarding New Instruments and Appliances to the editor of this department, 327 Southeast avenue, Oak Park, Illinois.

New Type of X-Ray Tube

Professor Elihu Thompson has recently patented an x-ray tube which has certain novel features in construction, principally in that the target or anode is continually changing, the object being to prevent overheating and melting of the metal as in the case of the ordinary tube. The anode as shown in the illustration consists of a rotating wheel having a comparatively broad band. This wheel is mounted with a tapered pinion, so that but very little pressure is required to turn it. As the cathode stream strikes the surface of the wheel, it automatically turns, thus continually presenting a new anode surface.

A tube has also been designed so that the wheel may be



Thompson x-ray tube.

turned by means of external magnet application. By attaching a neck to the x-ray bulb, the wheel is mounted on a long shaft, the end of this shaft carrying a steel disc. If a rotating magnet is operated around this neck, the shaft carrying the wheel will, of course, turn.

It is, of course, impossible to state whether this tube will be placed on the market soon, but it would seem that there are some features which would tend greatly toward prolonging the life of an x-ray tube, something which is always desirable.

Norwich Absorbo-Sheet

A very practical absorbent pad for obstetrical and other cases has recently been placed on the market. This pad is a combination of waterproof material, absorbent cotton, and surgical gauze. The entire combination makes a pad which is always ready for use, since it is sterilized. The sterilized gauze is in contact with the patient's body (unless the surgeon prefers to use a linen sheet), and serves the double purpose of affording cleanly comfort with the risk of infection reduced to a minimum, and at the same time it is slightly absorbent. The sterilized center is a fine grade of cotton, highly absorbent of liquid, and proportionately less so of semi-liquid excretions. The backing is of an impervious parchment paper, which retains its contents and prevents soiling of the bed linen.

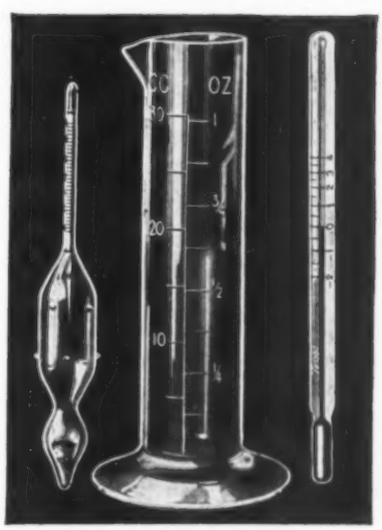
While many additional uses to which this absorbo-sheet may be adapted will promptly suggest themselves to the experienced surgeon or nurse, there may be mentioned obstetrical cases, enuresis of either paralytic or infantile character, suppurating sores, certain operative and post-operative conditions, and, in general, the collection of excretions of any character, with the minimum discomfort to the patient and protection of bed linen.

In certain types of obstetrical cases an excess of fluid may be readily disposed of as follows: pin a strip of 1-inch bandage across one end of sheet, leaving tails on each side of sufficient length to tie about the body. Make one fold of sheet about bandage, to prevent injury from pins. Place sheet under patient, draw corners up slightly to conform to contour of the body, and tie ends over abdomen. This prevents fluid from following the skin up the back. The free end of the sheet may now be formed into a drain by pinning each corner over toward the center, leaving a channel 6 inches wide down through the middle. The amount of fluid present in excess of absorbent capacity of sheet will follow down along the impervious paper backing until the folded corners guide it toward the center of the lower end, where it will drip off, to be caught in a suitable receptacle placed on the floor.

The size (24 by 36 inches) is large enough for practical needs without being unwieldy. The cost is so low that many prefer to use and destroy it rather than risk infection from some other device previously used on other cases and not thoroughly sterilized. Each sheet is rolled in an individual carton, both ends carefully sealed, and it is ready, therefore, for instant use in an emergency.

New Apparatus for the Determination of the Correct Specific Gravity of Urine

That the determination of specific gravity is one of the most important urinary tests has long been maintained by the more advanced and painstaking men in the medical profession. Until quite recently, however, they did not



Tycos urinometer.

have at their disposal really scientific apparatus to make tests of which they were absolutely sure as to their accuracy, but such an apparatus has been devised and put on the market under the trade name of the Tycos urinometer, which instrument was described in this journal in

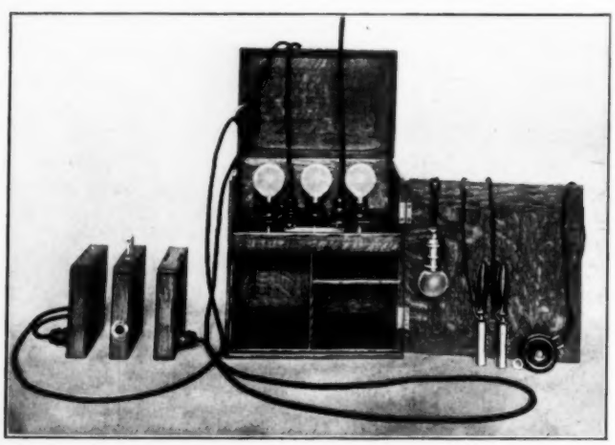
May, 1914, page 319. Recently another urinometer of similar type has been perfected by the same manufacturers which is intended for determination of specific gravity of small quantities of urine, the capacity of the jar allowing the determination of amounts as low as 25 cc. The urinometer jar is of very fine, tough, and especially clear glass, nicely finished and accurately graduated, and has a scale extending from 1,000 to 1,035 in 10-degree graduations. It is standardized for urine at a temperature of 77 degrees Fahrenheit with hand-written scale. The body of the urinometer has little glass points projecting from its surface so as to prevent the instrument from adhering to the sides of the jar. With the urinometer and the urinometer jar is furnished a correction thermometer, which, instead of registering degrees, registers the correction to be added to or subtracted from the specific gravity reading, depending on the temperature of the urine.

The method of using the instrument is as follows: Take the condensed reading in the usual way, then place the correction thermometer in the urine and note the point of the scale on a level with the indicating column. If this figure is above the point of standardization (77 degrees), the figure is added to the specific gravity reading, and, if below, the zero figure is subtracted from the specific gravity reading.

Magnetic Wave Generator

The Bachelet magnetic wave generator is an apparatus which has received much attention in the treatment of nervous conditions, and a number of them have been installed in sanatoriums with excellent results. In character the current is not a great deal unlike the Morton wave current delivered by a static machine, though the apparatus has the advantage of being considerably smaller in size compared with other devices for generating a magnetic field in which the patient is placed.

With this type of equipment the patient is placed in the



Bachelet magnetic wave generator.

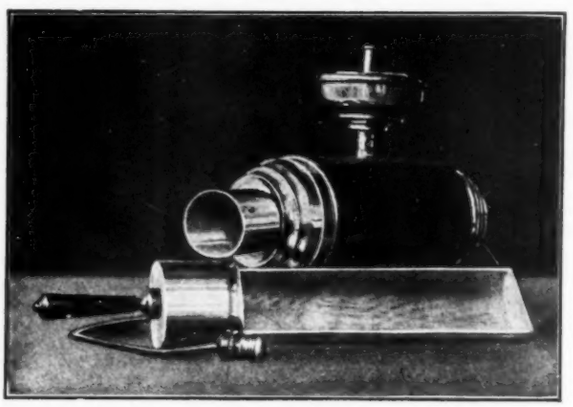
field, one of the generators in front and the other behind the patient, though some distance from him. As the generators are brought into effect, lines of force travel from one to the other, the patient's body being in the path of a considerable amount of current—namely, up to 3,600 milliamperes is passed. It is stated that there is no undue excitation of the nervous system as in many other cases of electrical treatment; on the contrary, the current absorbed acts more as a nerve sedative. Treatment of this character also has the advantage that the patient need not disrobe.

The operation of the apparatus is quite simple, and treatments can be properly carried out without a great deal of experience and with the loss of very little time. The apparatus is designed to operate from an alternating current, and can be connected to any convenient electric light socket.

Instantaneous Electric Steam Sterilizing

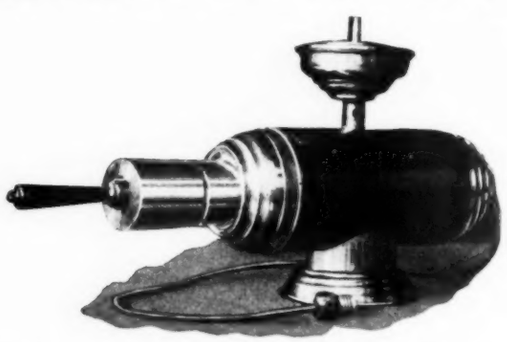
Sterilization with live steam has long been looked on by the careful surgeon as the only method whereby he may be assured that his instruments and other operating accessories are absolutely aseptic. The rather bulky and somewhat complicated apparatus, the escaping steam and other discomforts resulting from the use of such apparatus, make it practically impossible to use this method in the doctor's office or in the hospital dressing room.

A new apparatus has recently been put on the market



Instantaneous electric steam sterilizer open, showing instrument tray.

which sterilizes at atmospheric pressure by combining radiated heat with superheated steam, the steam forming a protecting film upon the instruments, so that their temper is not in any way affected by the heat. This method is known as the Pentz system of sterilization. The manufacturers claim that, where it formerly required thirty minutes' time at 15 pounds pressure, the same results may be obtained in thirty seconds by using this apparatus. The apparatus somewhat resembles a thermos bottle fixed on a standard in a horizontal position. The wires enter at one end, while the other receives a cylindrical tray which



Instantaneous electric steam sterilizer closed up ready for work.

practically fills its cavity. Above the body of the sterilizer is a cup from which water drips through a steel tube with glass windows into the heated chamber surrounding the inner cylinder into which the instrument tray is inserted. Here it is converted into steam, and as such passes through small holes in the bottom of the inner

cylinder into its cavity. The drip is regulated by a thumb-screw.

The temperature attained by the sterilizer varies, dependent on the rate at which the water is allowed to drip. With the water dripping at the rate of 40 drops per minute, a temperature of 350 degrees C. (662 F.) is obtained. This temperature is reached in ten to twelve minutes after turning on the current, and then the apparatus is ready for instantaneous sterilization.

The apparatus for use of physicians and clinics is manufactured in several sizes, having sterilizing trays 4, 5, or 6 inches wide, with respective lengths of 18, 22, and 26 inches, thus making the sterilizer suitable for accommodating practically all types of surgeons' instruments. These sterilizers have an asbestos jacket for conserving the heat, and the outside body is finished in black and white nickel plate.

Sexual Armor for Prevention of Self-Abuse by Insane Patients

DEVISED BY ELLEN E. PERKINS, R. N.

It is a deplorable fact that one of the common causes of insanity, imbecility, and feeble-mindedness, especially in youth, is due to self-abuse, an evil which is about equally true of both sexes. Physicians, nurses, and attendants connected with insane asylums have found this the most difficult of all bad practices to eradicate because of the incessant attention required of them in respect to the subjects in their care; in fact, it has been found practically impossible to give to any such unfortunate persons that constant personal attention which is necessary to accomplish their redemption from this habit. The inventor of the apparatus illustrated here, in her capacity as a trained nurse, became very familiar with this subject, and the melancholy human tragedies transpiring before her eyes have impressed on her the necessity of a device which will aid those concerned in the treatment of such cases in the cure of this disastrous practice, and will at the same time give the person under treatment the necessary personal liberty. Mrs. Perkins has invented a simple and efficient device, shown in the accompanying drawings, which she claims accomplishes the prevention mentioned above. Fig. 1 is a front view, showing the device applied to a person, and Fig. 2 is a rear view of the device shown in Fig. 1. The device consists of a cloth gown made in form much like an armless short-legged bathing suit. The metallic part of the armor is secured to the crotch portion of the garment, and comprises two principal parts—an inverted arch-shaped thin metal crotch, having a central opening or segmental slot, and a segmental gate, which normally closes said opening or slot. The crotch plate at its upturned front and rear extremities is provided with hinged extension plates, which, as well as the side edges of the arch plate, are stitched and securely attached to the trunk portion of the garment. The inner portion of the legs of the garment are covered with heavy leather reinforcements, the upper edges of which are securely attached to the sides of the arch plate. The segmental gate is provided with lock and key. The gate is perforated, so that liquid matter may be passed through with the door locked in its normal position. When at certain times and for obvious reasons it becomes necessary to open the gate, it can be unlocked by the proper person and then turned forward and upward. The shirt portion of the garment is reinforced by shoulder straps and a neck strap of leather. The ends of the neck strap at the rear of the garment are connected by a small padlock, so that it will be impossible to remove the garment without first unlocking this padlock.

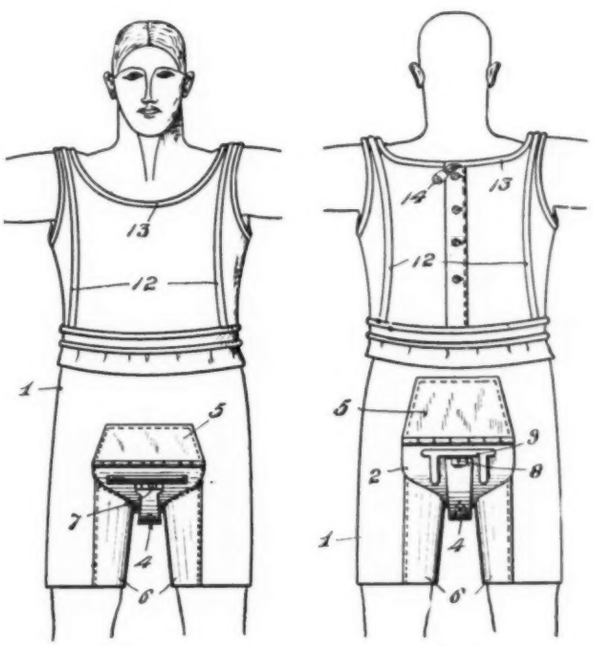


Fig. 1. Fig. 2.

Front and rear view of Perkins' sexual armor.

In actual practice the inventor claims that the armor above described, when correctly made and fitted to a patient, may be worn with very little discomfort, and, when properly covered by overgarments, the fact of its being applied will not be noticeable.

Kuttner-Leitz Microcolorimeter

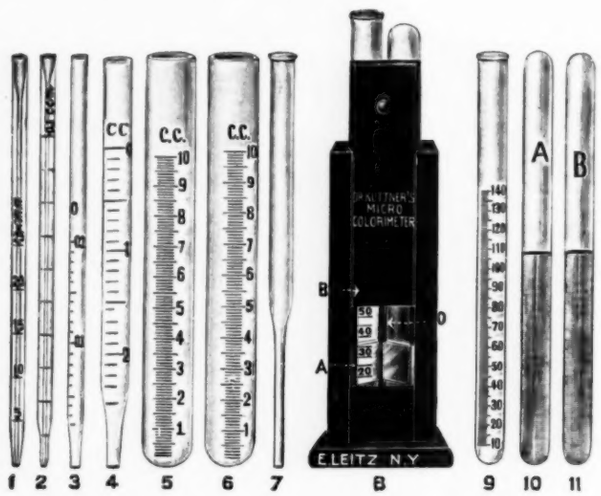
The use of colorimeters of various forms in pathological laboratory work has steadily increased during recent years, and many devices have in consequence been designed. Previous to the time when exportation from European countries ceased, most of these instruments were imported. In common with many other instances, American ingenuity came to the rescue, and a universal colorimeter is now being made here, which for simplicity and accuracy is far better than many of the more elaborate and expensive European instruments.

The device illustrated was designed by Dr. Theodore Kuttner, of New York, and is intended for the examination of blood, urine, or other physiological fluids. The same calibrated and color tube employed in the Sahli-Gower hemoglobinometer has been adopted for this instrument. Neither in their diameter nor in their calibrations are the tubes on the market uniform, thereby causing great discrepancies in determinations. By the use of certain micromeasuring apparatus this has been remedied in the Kuttner microcolorimeter by having all calibrated tubes made with the utmost uniformity, thus reducing the percentage of error to a minimum.

The Sahli allows both the calibrated and color standard tubes to be viewed at full length; the new instrument, however, shows only a small part of the tubes when making color comparisons. This facilitates the color reading and is less fatiguing to the eye. An additional feature is a prism (A), to be described, which apparently causes the contents of the tubes to approach each other more closely, thereby accomplishing greater accuracy in the comparison of colors.

The instrument, consisting of a closed upright box, 2.5 cm. by 8.5 cm., is smaller than the Sahli. At the top there are two openings—one for the color tube and the other for the calibrated tube. Near the lower front part is a window provided with the prism mentioned (A—Helmholtz double plates), which serves the purpose of having the colors of both tubes appear close together, forming one continuous color band. The prism is easily removed for cleansing and can be quickly readjusted. A sliding door (B), which can be raised and lowered, protects the prism from dust and injury. The color standard and calibrated tube are separated from each other by a partition, which prevents light from being reflected from one tube to the other.

Nearly all standards in colorimetric work are more or less unstable, being composed of organic substances, but with the standards of Dr. Kuttner's microcolorimeter this factor of inaccuracy is obviated by making use of small hermetically sealed tubes containing only mineral substances in solution, which are stable.



Kuttner-Leitz microcolorimeter.

The standard color tube is inserted into one of the openings and the sliding door raised until the window is exposed. The calibrated tube, with its contents ready to be estimated, is inserted into the other opening and the diluting fluid added drop by drop and mixed until the color matches that of the standard. When this has been accomplished, the sliding door is raised enough to enable one to observe the height which the fluid has attained. The calibrated tube is graduated up to 140. In order to obtain close results when making readings, it is best to read at that point at which the color just matches the standard, and then, slowly continuing the dilution and taking other readings, accept as the final figure the one just previous to the point at which the color became fainter. In most of the methods the reading so obtained is equivalent to that many milligrams of the substance sought in 100 cc. of the blood, urine, etc., which is being tested. In order to obtain the result expressed in percentage, it is only necessary to divide the obtained number of milligrams by 1,000, thus:

$$\frac{\text{75 mgrms.}}{\text{1,000}} = \text{0.075 percent}$$

The instrument should be held at a distance convenient to the eyes of the observer.

QUERIES AND ANSWERS

Fumigation Up Again

To the Editor of THE MODERN HOSPITAL:

May I ask your advice as to the best manner of fumigating hospital rooms? We have found no method that was entirely satisfactory. A FAR WEST HOSPITAL.

We have realized for some years that fumigation, as it was actually practiced, and as it is possible to practice it in the rooms and wards of a hospital, is worthless. A good deal of laboratory and clinical work has been done to establish this fact. About a year ago the New York Department of Health gave up fumigation. The United States Public Health Service fumigates only under exceptional circumstances and where it is able to control the gases, such as aboard ship, and even then cyanide and sulphur are the gases of choice, neither of which is practicable in a hospital, and are used more to destroy insects and vermin than microorganisms.

Richardson, of Providence, cleans his rooms, following a case, with soap and water, sends the mattress, pillows, and rugs to the disinfector, and washes the blankets and bed linen after soaking them in a 3-percent carbolic solution.

Size of the Administrative Staff

To the Editor of THE MODERN HOSPITAL:

The question frequently arises here as to the number of staff we employ in proportion to the number of patients, or beds. As I understand the matter, the proportion depends entirely on the kind of institution. A hospital that is complete in itself—that is, has its own laundry, power plant, pathological department, etc.—will, of course, show a larger staff than the hospital which pays to have the work represented by these departments done outside the institution.

I would like to ask you if, in estimating the ratio between the number of your staff and the number of your patients, you would include the probationer nurses—that is, the nurses who have not yet completed their three months' probation, and are really not members of the training school.

I have always understood that this ratio of one to one is about correct, and on looking back I see I have maintained about that proportion (usually less). However, the ordinary laymen of the board of directors always think that this figure is far too high, and that the staff is too large.

I would be very much pleased, indeed, to have your advice on this matter, and, if possible, I would like to have your reply before the next board meeting.

A CANADIAN HOSPITAL.

Some of the best hospital men in the country predicate their evaluation of the services given to its sick people by a hospital on the proportionate size of the staff of well persons employed. A hospital cannot give service that is undermanned, and it is pretty nearly unanimously agreed that for a hospital of 180 patients, or even for a hospital of anything more than 100, the proportion of well people to sick is about equal; but these well people would include all the administrative staff—that is, resident officers, heads

of departments, the common help, and nurses in training, including probationer nurses; the latter because these young women, although they are not in uniform, would perform certain services simple in character perhaps, but services that leave free the older pupil nurses to perform a higher order of service in connection with the care of the sick.

It must not be forgotten that a certain number of the executive staff, including pupil nurses, are required for night duty, and that there are twenty-four hours in each day, and that the people employed cannot be expected to work twenty-four-hour shifts, so that in some departments there is a duplication of well people. Too many hospitals are ignoring this fact in figuring the number of well people required.

The time has gone by when we can regard our modern hospitals as mere boarding houses for the sick, and sick people are sick twenty-four hours in the day, and in an acute-disease hospital they require service during all the twenty-four hours—not as much service in the night as in the day time, because there are no dressings to do, no surgery, except in emergency, and not much feeding of patients. But nurses must be present at night to answer calls, see that orders are carried out, medicine given, and the necessary nourishment provided for those for whom the doctors order it. There are also temperatures to take and the charts to keep up, there are patients to be admitted, maternity cases to care for, and hundreds of other definite and needed services to be rendered. A good many trustees forget these things, and they seem to think that, if the hospital is properly manned during the daytime, everybody can go to sleep at night and wake up to find things ready for routine running in the morning. This is not true in a properly operated hospital.

The Hospital Organization

To the Editor of THE MODERN HOSPITAL:

We are at the present time at work on plans for a new hospital for our university, and in this connection I am giving considerable thought to devising a modern and logical scheme of organization, one which shall properly take care of the problems of delegating authority and satisfactorily separating departments.

In looking over our files of THE MODERN HOSPITAL, I note in the September, 1914, issue an article on Hospital Organization and Accounting by H. M. Wechsler, which is interesting, and which is fully in line with our practice. This is a surgical hospital of 100 beds. What I particularly wish to know is, to whom is the head surgical nurse properly responsible? Should she be responsible to the superintendent or to the superintendent of nurses, who, in our hospital, in addition to her authority as dean of nurses, is responsible to the superintendent for the nursing service. She has responsible to her the following assistants: assistant superintendent, head nurses, special nurses, orderlies, ward nurses, graduate nurses, training school faculty, and housekeeper of nurses' home.

In our organization the operating rooms service is a separate department, and is in charge of the head surgical nurse, who is responsible for its conduct to the general superintendent. I would be grateful to you for information as to the practice of some of the best and most modern hospitals in this regard. I trust that I am not imposing unduly on you in asking for this information.

With assurance of my appreciation for any information you may find it convenient to give me along this line, I am, etc., DEAN.

It seems the clearest proposition imaginable that in the organization of your hospital there must be one final authority—viz., the superintendent. It does not matter to whom the superintendent is responsible, whether it be a board of trustees or the faculty of the medical school, or even the medical staff of the hospital, the superintendent must be responsible for, and have authority over, everything concerned in the management of the institution.

But, in thinking about the active control of the surgical nurse, it is usual to have the surgical nurse—in fact, all the nurses—directly answerable to the superintendent of the training school, while the superintendent of the training school, in her turn, is answerable to the superintendent of the hospital, in the same way that the cook in the kitchen is answerable to the housekeeper and the housekeeper is answerable to the superintendent of the hospital. The superintendent of the hospital would not think of giving orders to a stoker in the power plant, but he would give his orders to the engineer, who would be directly over the stoker. Unless you have some central authority, who can be looked to for all executive orders and executive action, you cannot have a responsibly conducted institution.

You say that in your hospital the superintendent of nurses has under her jurisdiction the assistant superintendent, the head nurses, special nurses, orderlies, ward nurses, graduate nurses, training school faculty, and the housekeeper in the nurses' home. This is just exactly as it should be, but the superintendent of nurses herself should be answerable to the superintendent of the hospital.

It would be one of the most disrupting and disorganizing things imaginable to have the surgical nurse reporting over the head of the superintendent of the training school directly to the superintendent of the hospital, and this is not done in any good hospital of which we know. Let us reason it out briefly: the workers in the operating rooms are pupil nurses, and they are supposed to get their training under the superintendent of the training school. How are they to be controlled in their curriculum and in their regular studies, and in the regular work itself, as a part of the training school, if, the moment they go into the operating room and under the direct supervision of the head surgical nurse, the superintendent of the training school ceases to have anything to say about them or concerning their training? And, yet, you are holding the superintendent of the training school responsible for the training of these young women.

We think that the best judgment of the strongest hospital administrators in the country is in favor of departmental separation and responsibility, with as much independence of action for the several heads of departments as can be created, always presupposing that there must be team-work between the departments where their activities overlap, and we believe that the best hospital superintendent is the man or woman capable of accepting responsibility for all these departments and of getting cooperation and team-work from all of them.

When it comes to the question of the central authority, it seems to us there is no argument about where it should lie; if the work in the operating rooms is not up to the best standards in technic and execution, and if thereby physicians should leave the hospital and take their patients elsewhere because they were unwilling to submit their patients to the faulty operations of the surgical department, and if, in consequence, the hospital lost the patronage of some valuable medical men and suffered in its financial department, do you think the surgical nurse would be called on by the board of trustees for an explanation? It seems to us the superintendent of the hospital would mighty soon hear from the board and be asked for an explanation of the falling off in the income, or for an explanation concerning the loss of the patronage of some of the strong medical men who had been sending their patients there.

It will be noted always that when there is any trouble in the hospital, of whatever nature, the person held to account is the superintendent of the institution. If a patient in a delirium jumps out of a window and is killed, is it the head nurse of the floor that is held accountable or the superintendent of the hospital? Our experience is that the coroner sends for the superintendent of the institution and is likely to give him a pretty troublesome half hour, and the head nurse on the floor never hears about it. If the floor supplies are wasted and the bills climb up, the housekeeper is not called before the board of trustees, but it is the superintendent again who must answer. In all of these cases the superintendent of the hospital can go back to his department heads and hold them responsible, but in a final analysis he must bear the burden himself, and himself alone, for whatever mistakes or accidents or misfortunes occur under the roof of the institution, no matter in what department.

How to Treat Bed Sores

To the Editor of THE MODERN HOSPITAL:

Please let me know if anything has recently been published on the subject of the treatment and prevention of bed sores. I should like very much to have the latest information on this subject which is available.

A TORONTO HOSPITAL.

The answer to this inquiry is given by Dr. Joseph C. Friedman, internist on the staff of Michael Reese Hospital, Chicago.

The best way of preventing bed sores is to keep the patient scrupulously clean and especially dry, as well as by different changes of position. At the first appearance of a suspicious red spot, the mattress should be changed for a water-bed and a pillow be placed just outside the red area, so as to keep it from all contact with the bed. Alcohol is used after careful washing of the parts. If a sore develops, an application of equal parts of balsam of Peru and castor oil should be used; then a dry dressing applied to this. The application is made at least three times in the twenty-four hours, the pillow still being used to elevate the sore slightly. At each change of dressing it should be cleaned with peroxide. In case of extremely indolent sores a pad of 2 to 8 percent scarlet red in lard may be used to stimulate epithelial growth, and, if the case has been an extremely neglected one, the application of the ultra violet ray is worthy of trial.

Wants Isolation in Small Hospital

To the Editor of THE MODERN HOSPITAL:

In your judgment, could a hospital undertake the treatment of contagious diseases in a building to be added for that purpose or in a separate building?

We may enlarge our present hospital building. The question has arisen whether we could in any way provide for the treatment of contagious diseases. Some have thought that an addition, either separate or in connection with the building, might be constructed so that it could be used in the general work of the hospital, and, should the necessity arise, also used for the treatment of patients with contagious diseases.

We would appreciate any information which you would give as to how a hospital in a not large city might be equipped so as to treat contagious diseases. A. B. P.

The only real demand in an isolation department is that it shall have facilities to cut off intercourse with the rest of the house. A door that can be locked is quite an efficient separation, and the department itself should have at least four units or rooms in which the chief infections can be isolated. An ideal arrangement would be four rooms, each containing a small alcove or separate room in which a gas plate, running water, toilet, and bath can be installed. Each of these units should open to the outside, so that an orderly can deliver food, necessary medicines, clean linens, etc., and take away the soiled linens, soiled dishes, and so on. The method of handling these various items is a technic in itself. The dishes, after being used in infected quarters, would be immersed in a 3-percent carbolic solution and delivered to the orderly by setting them on the porch; soiled clothing would be delivered in the same way, or placed in a regular laundry bag, the latter not having been in the room, but left on the outside for the purpose by the orderly, who returns to get the filled bag.

It will rarely happen that you will have more than one or two infections at a time, and the other rooms of this suite—which, by the way, would have their doors opening on the inside corridor—could be used for any other purpose or for any other class of patients; that means that another very particular, but easy, technic must be applied in the cleaning of the rooms after a case is released. We are not using fumigants very much at present, and under ordinary hospital conditions they are not efficient, and we do better now by sending the mattress to the sterilizer or by soaking it in a 3-percent carbolic solution for twenty-four hours, and by employing the same method with blankets and pillows. The blankets should not be sent to the sterilizer, however, as it destroys the fabric. The room itself is cleaned with a 3-percent carbolic solution, using tepid water and soap; the beds, furniture, floors, walls, and ceilings are washed in this way. If it is properly done, you will be perfectly safe in putting in any kind of a case that you have.

Selection of Training School Pupils

To the Editor of THE MODERN HOSPITAL:

At your earliest convenience, will you kindly answer the following questions?

1. What do you consider the best method of selecting from applicants—that is, ways of determining suitability as regards character, etc.?
2. What method of procuring references do you advise and to what extent do you rely on these?
3. What amount of preliminary education is compulsory? Would you insist on high school graduates or would you make exceptions?
4. What is the best minimum age limit?

A PERPLEXED PRINCIPAL.

Please let us answer your queries in the order in which you have asked them:

1. There is no infallible index as an insight into character; personally, I would rather spend five minutes with an applicant, and look her in the face and talk to her, than to have all the references that could be accumulated. Certain letters that she may bring with her will help, of course.

2. Most of the training schools prefer letters from the clergyman with whom the applicant's family has been on intimate terms. Personally, I care nothing whatever about letters from clergymen. In my experience they are utterly worthless; more worthless, if possible, than letters from a relative would be, because any young woman can get letters of the very highest commendation from a clergyman in her home town. The best letters that I know about are letters from medical men in the community from which the applicant comes, but they are not letters from the family physician or from a medical friend of the family. I very much prefer to write letters of inquiry, and I like to write them to medical men of standing in the community, and I am not particular about whether I

know the medical men or not; I want to know only the position they occupy in the community, and the right sort of personal letter to them will get the right sort of confidential reply.

3. I am not in accord with the prevailing rule in regard to preliminary education. I think the applicant who has had a good common school education, supplemented or preceded, or both, by good home training, will make the best nurse, and I prefer her; the other alternative being an educated girl without the home training and without the sound morals. In other words, if I must make a choice between the two, I take the conscientious girl with the home training and the common school education. My sort of girl is not the one who will make the best teacher, and I would not try to make a teacher of that kind. I would rather, of course, have the college-bred woman, because she, too, can be of high moral character and good home training, but there are not enough good young women with college education to fill our training schools.

4. I know young women of 17 and 18 who are more mature, and who are capable of making better nurses and even better pupils, than some other women who are far older. Girls generally finish their school work when they are 17 or 18, unless they are going to college, and, if they are compelled then to wait for three or four years until they are 22, they will have lost the habit of application, and it is my experience that they do not keep up well in their book work. The girl who has had the right sort of bringing up, can, as the saying is, "stand without hitching" just as well at 18 as she can at 21. Nor do I think we have established just the correct maximum age limit—that is, if it is to be arbitrarily enforced—because I know nurses who graduated at 40 and who are making splendid nurses, so I think it is the individual rather than the mass that should rule in the matter of age limit.

5. I think the best pupils in most training schools are women recommended and sent in by members of the medical staff of the institution. These men know the hospital and they know the girls, and I think they are better qualified to judge as to the fitness of one for the place than anyone else; besides that, these medical men are usually personally concerned about the welfare of local young women whom they recommend, and I think take more interest in their work and lives than they do with women who go in as strangers to them.

JOHN ALLAN HORNSBY.

Cost and Limits of Welfare Work

To the Editor of THE MODERN HOSPITAL:

I would be glad to be advised what studies you may have made into the subject of hospital requirements for the attendance of employees in industrial corporations, and the cost of construction and equipping this type of establishments of various sizes.

In connection with our own welfare plans I have had occasion to look into the hospital question, and am collecting such information as is available on the subject.

A MUNICIPAL TRACTION COMPANY.

There are no figures of cost that may be used as standards in industrial welfare work; indeed, the work itself is not standardized, and there is no unanimity of opinion as to just what work should be done. Some corporations have a small hospital in the factory plant, with two or three beds for emergency, a small operating and dressing room, and an auxiliary room or two for supplies, sterilizers, etc. Some of them have no hospital beds in the plant, but merely a surgical dressing room and a dispensary and examination room. Some of them do nothing of hospital or dispensary work in the plants, but have a nurse or social secretary who looks after the health of the employees, and visits such of them as are sick, in the homes. Many of them conduct cafeteria lunches for their employees, and a few of them have developed this luncheon plan by the aid of expert dietitians, and have made a great point of it. Some corporations, especially those whose plants are in small towns, have athletic and social clubs, and spend a lot of money and time in preparing entertainment for the people; this is one way of keeping industrial workers contented in small communities.

It seems to us there is opening up a field for an industrial engineer in this welfare work, someone who can go into a plant, study the needs of that particular institution, and prescribe forms of welfare service that will meet the special need. Such a survey is becoming more necessary as time goes on, and an expert who has given a lot of study to it in many plants would be able to devise a welfare service that would give the corporation the needful things without any fads or fancies. In your own case you will have to make some such survey as this, because it is almost impossible to make any hard and fast rule as to what a corporation shall do. For instance, there may be an excellent general hospital nearby that has a good out-patient and dispensary department, and where arrangements might be made by the corporation with the hospital for the dispensary and out-patient care of the employees, which would be a great help; the corporation would pay a certain sum to the hospital and look after the hurts and illnesses of its employees.

But quite easily it might happen that conditions were reversed, as, for instance, at Rahway, N. J. There was no hospital there, and the nearest hospital was at Elizabeth, some twenty miles away. The Wheatena Company, with its plant at Rahway, built a small hospital into its new factory building, and invited the doctors and the public at Rahway to use the hospital. There the corporation created a hospital for the surrounding community.

Miss Lemoyne Phares, superintendent of the Inge-Bondurant Sanitarium at Mobile, Ala., was elected president of the Alabama State Association of Graduate Nurses at the annual meeting of the association held in Mobile the first week in October. The other officers for the ensuing year are: Miss J. Cady, Mobile, first vice-president; Miss Bell Hope, Montgomery, second vice-president; Miss Helen McLean, Birmingham, recording secretary; Miss DeWitt Dillard, corresponding secretary; Miss Mary Denham, Birmingham, treasurer.

The Denver (Colo.) City and County Hospital has recently completed extensive improvements, including the laying of new floors, the erection of a new operating room, and twenty rooms for nurses, the installation of a new x-ray machine, the building of a maternity room, the purchase of a new ambulance, remodeling of garage, and the installation of new fire escapes. Ramps have been substituted for stairways, and it is asserted that the big building, housing an average of between 340 and 400 patients, can be emptied in three minutes without removing a patient from a bed or cot.

The city of St. Louis has recently opened the first two units of a new isolation hospital designed ultimately to comprise a group of five buildings besides nurses' cottages, and to cost about $500,000. The structures now in use have a capacity of 250 beds, and are built in accordance with the newest approved ideas for hospitals of this class. Features of the construction are plate-glass partitions and arrangements for the maximum of sunlight. Pay patients will be received, and this policy is expected to benefit not only residents of St. Louis, but also strangers who may be stricken while in the city.

The Value, Scope, and Expense of Routine Dental Treatment in Hospitals

BY THOMAS B. HARTZELL, D. M. D., M. D.,

Research Professor of Mouth Infections, Medical School, and Professor of Oral Surgery and Clinical Pathology, College of Dentistry, University of Minnesota; Director of Special Research for the Research Institute of the National Dental Association.

It is the earnest ambition of the author of this paper to so marshal and present the facts at his command that those interested in the management of hospitals will feel impelled to adopt measures that will secure the benefits of dental treatment to the patients of all hospitals. To bring this about, I must present valid reasons which will impress the minds of business men, because hospital superintendents are, first of all, business men, and, second, physicians. Therefore, I will plunge at once into a consideration of the reasons for dental and mouth sanitation.

The flora of the human mouth is varied, and contains at one time or another almost all the pathogenic bacteria that have ever been recognized. The human mouth is the greatest gateway to infection of the body. Nearly one-half of all the bacteria in the human mouth belong to the type known as streptococci, and the tooth's surface is the habitat from which most of the streptococci in the mouth procreate and spread to the balance of the body. By actual weight and count, Kligler[1] has shown that human tooth scrapings from healthy mouths contain from 6,000,000 to 8,000,000 bacteria to the milligram, and in diseased mouths from 600,000,000 to 800,000,000 bacteria to the milligram. He has shown by weight and count that 44 percent of this enormous mass of bacteria is streptococci,

Fig. 1. Mrs. B., a bed-ridden hospital case of arthritis deformans. Had tonsils removed two years prior to entrance in hospital. Case presented a focus of infection in her jaws.

and from 18 to 22 percent is staphylococci. The balance of the flora of the mouth contains many other organisms, notably the pneumococcus, the fusiform bacillus, various families of spirochete, and molds. It is a known fact that the streptococcus has an enormous rate of growth, under favorable conditions doubling in number every thirty minutes. The greatest growth in the mouth occurs between the teeth, at their necks, and on the sides of the teeth that are not disturbed by the movement of food in mastication. It is also a recognized fact that broken or decayed teeth with open pulp chambers form an avenue through which many of these bacteria enter the circulation.

It is an easily demonstrable fact that the gum margins receive and contain at all times great numbers of these bacteria, and an examination under the microscope of a section of human gum margin, involving the crevice and subgingival space, shows that it is very meagerly protected by epithelium, making possible the entrance of bacteria in this area into the surrounding veins and lymphatics.

The total length of the gingival margin in the mouth of an average individual is 30 linear inches. Into this crevice may drift the bacteria growing on 20 to 30 square inches of tooth surface. If continued growth is undisturbed, the toxins and ferments of the streptococcus and staphylococcus soon injure the epithelium lining the crevice. This results in decomposition of the epithelium and pus formation, and the subsequent entry into the circulation of the bacteria growing in there. The broken-down tooth with its open pulp canal or the badly filled devitalized tooth becomes the direct avenue of inoculation. These two avenues may, therefore, be the means of conveying into the circulation great numbers of bacteria, so scattering them into the blood stream that immunity is broken down, and local

Fig. 2. This picture shows the patient standing up on the day she was discharged from the hospital. She regained the ability to walk and was discharged from the hospital as a result of the removal of infected teeth and subsequent vaccination by the streptococci obtained from the dental lesions.

ulcers at the gum margin become the origin of secondary lesions—heart, joint, brain, liver, lymph nodes, and intestinal mucous membrane.

The series of pictures of secondary lesions produced experimentally by the inoculation of animals with human salivary streptococci is offered here in support of the statement that 75 percent of all heart disease, both myocardial and endocardial, is dependent on streptococcus viridans, and that many of the lesions of ordinary arthritis are due to the same cause.

It is the belief of the writer, supported by clinical experience and experimental lesions produced in animals, that a great percentage of kidney disease is also due to the same common mouth infection. Attention is further drawn to the fact that this enormous production of streptococci and staphylococci growing upon the tooth surface, together with other putrefactive microorganisms, is swept

[1] Journal of the Allied Societies, September, 1915.

into the stomach by the acts of mastication and ingestion of food, interfering with digestion and modifying nutrition. We have shown, by the inoculation of a series of 225 animals with fifty strains of hemolytic streptococci in part and mouth streptococci in part, that ordinary salivary streptococci, when introduced into the circulation in any considerable amount, produce within a very few percent as many heart, kidney, joint, intestinal, and brain lesions as does the most virulent hemolytic streptococcus. A table submitted of a recent research by Henrici[1], undertaken for the National Dental Association, substantiates this fact; therefore the elimination of mouth streptococci by certain simple but vigorous methods of mouth sanitation will greatly reduce the types of disease dependent on this kind of infection. The records of focal infection secondary to mouth infection, including teeth and tonsils, in the Minnesota University Hospital, show that from 30 to 50 percent of admissions in the medical service are *there* as a result of preventable secondary infection dependent on mouth infection. We have found by actual treatment that 10 to 20 percent of the beds in the medical service can

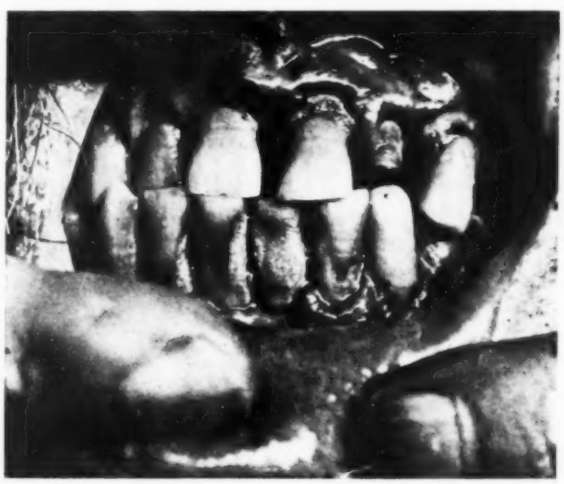


Fig. 3. An ordinary hospital case.

be emptied by adequate dental service, and that most of such cases could be prevented if the American people would universally practice vigorous mouth sanitation.

SCOPE

The experience gained in the past three years, in the maintenance of a clinic for experimental purposes in the University Medical School Hospital for the Research Institute of the National Dental Association, has taught us that oral prophylaxis is of such great value that the service will be amplified during the coming year. I might explain that with us oral prophylaxis means the vigorous scrubbing of all tooth surfaces so they shine like polished porcelain, and the heavy rubbing of the gum margins with dry cotton. Of so great importance do we deem this that we are increasing this service in the hospital by assigning a special nurse to this work, whose duty it will be to go from bedside to bedside inspecting the mouths of patients, and thus making sure that sufficient time and effort have been given to this work, as it requires not less than fifteen minutes a day per patient.

All patients entering the hospital should have their mouths and teeth inspected as part of the routine examination, and the early cleansing of the mouth should be observed with the same care as the initial bath and clean clothing. In those cases in which the patient is exceedingly ill the swabbing of the mouth with a sponge of cotton the size of an English walnut dipped in hydrogen dioxide should be the first step. This swab should be vigorously handled, reaching all parts of the whole mouth, including the tongue, and should be followed by a light scraping of the tongue and a rinse of warm water. Where gingivitis exists, and the patient is not too ill to preclude careful work upon the teeth themselves, the teeth should be cleansed of all scales of tartar and bacterial masses. They should then be polished to make future cleansing easy. After this service has been rendered, the gums should be touched with a mild iodine solution. We have observed that the above line of treatment shortens the residence in the hospital of all types of patients. In the foregoing sentences I have outlined the simplest form of hospital treatment that could be adopted, and have not attempted in any way to outline the scope of what should be done for individuals suffering secondary infection as a result of mouth infection.

I will now briefly outline methods for the treatment of secondary diseases arising from mouth infection, whether it be heart, joint, or kidney. Such cases of secondary infection should have the benefit of early x-ray examination, and the primary focus accurately determined by combined macroscopic and x-ray examination. If the gums are found to be suffering mild gingivitis only, then the treatment of gingivitis should be undertaken immediately. In case there is much bleeding, an interval of three or four days should be allowed to intervene between each treatment. If the case is one of an active prolific pyorrhea, in which there is still ample bony foundation to carry the teeth, preliminary prophylaxis should, of course, be followed and the pyorrhea pockets about the teeth treated by the following method: the diseased material on the root surface should be gently removed by sharp planes, so that the root surface is left a brilliant, gleaming white. Only one or two teeth should be treated at any one time, and from five to seven days should elapse between treatments, dependent on whether the patient gives evidence of acute bacterial infection as a result of treatment. To more fully explain what I mean, I will say that it frequently happens, where too many pyorrhea pockets have been disturbed at one time, there will be malaise following such treatment, a light rise in temperature, and, if the case be one of chronic arthritis, all of the joints and pariarticular tissues will be made exceedingly sore and tender as a result of overinoculation of the bacteria in the pockets. This inoculation cannot be avoided as a result of the manipulation of the instruments necessary to free the root's surface of its dead infected coating. If it happens to be a case of myocarditis, overinoculation by the treatment of too many pyorrhea pockets will result in malaise and increased weakness for a period of several days. If it be a case of acute diffused nephritis, overtreatment results in an increased number of casts and more albumin than before treatment was attempted. Because of the damage wrought by overtreatment, I wish to emphasize the necessity of slow and guarded treatment of gum marginal infections. I also wish to draw attention to what has proved in our hands the most valuable fact we have learned in the treatment of secondary infections dependent on mouth infection—namely, that the reduction of the mass of bacteria entering the circulation has a distinct value when it is accompanied at the time by the necessary inoculation of the patient with the germs in the lesion, provided this inoculation or vaccination is not so great as to cause undue exacerbation of the secondary infection.

[1]Article soon to appear in the Journal of Infectious Diseases.

I have many times seen arthritic cases which had failed to respond to any form of therapeutic treatment begin to improve from the very day the amount of bacteria entering the circulation was lessened by the method indicated, and I believe the benefit which these cases experience is due to two things: first, the lessening of the amount; second, the vaccinating of the patient in the act of treatment.

I wish to give a single case record, which is typical of a great many at my command, illustrating the principles just discussed.

January 18, 1916. Mr. J. J. Age, 43; white, married; a mechanic by trade. Had not lost a single day's work in three years. Experienced distress with his teeth. He appealed for dental service. Operator in charge examined the mouth and found a loose bridge resting upon two abscessed teeth, which also exhibited a copious pyorrhea. The bridge, with the two abscessed teeth, was removed, together with three other loose teeth. That night the patient experienced a chill, followed by fever, which steadily increased. All the joints of his body became rapidly involved, one after another. He experienced a typical inflammatory rheumatic attack. Was given the usual treatment by his physician. Eventually the acute stage passed, leaving the patient with feet drawn up almost to the buttocks, one wrist exhibiting an almost silver fork deformity, with the hands crossed upon his breast about the level of the sternum. When seen by the writer about the middle of May, the patient had been in bed continuously since January 18, and for the previous six weeks had made no progress toward repair. He was unable to lift the hands to his face or extend his legs. On examination it was found that he had several other abscessed teeth, together with considerable pyorrhea of the remaining vital teeth. In view of the joint fixation and atrophy, the case seemed hopeless. Directions were given, however, that the diseased teeth in the mouth should be removed and the sockets curetted one at a time, and that a period of seven days should elapse between each extraction and curettement, and that, if the patient experienced much exacerbation of the joint symptoms, the time should be lengthened to nine days between the operations. If he did not experience exacerbation, the time of interference might be shortened to five days. These directions were carried out, and, following the removal of the first abscessed tooth and the curettement of its socket, a sharp reaction was followed by a definite improvement in the general condition of the case. The diseased areas in the mouth were gradually and cautiously eliminated, and I insisted that the men in charge of the case should husband the dental lesions as they would a valuable remedy, as the ultimate recovery of the case depended entirely on the manner in which they carried out this treatment. The result has been that this patient is now out of bed, is beginning to walk, is quite able to wheel himself about in a wheel chair, and can feed himself. No therapeutic treatment has been administered since the beginning of the surgical treatment of his mouth lesions.

The lesson taught by this case and many others like it is that, when a patient is almost saturated with the microorganisms and toxins arising from multiple lesions in the mouth, judgment and care should be exhibited in disturbing local primary lesions. It is quite evident that this patient was overwhelmed by the first operative interference on January 18, which resulted in the involvement of his whole body, and, luckily for him, enough of the primary lesions remained in the mouth to make it possible, by their slow elimination and the cautious inoculation of the low-grade living organisms found in these primary lesions, to bring about cure. We have, therefore, by these principles the means to empty our hospital beds of many hitherto hopeless chronic cases.

I hope that I have shown that the scope of dental service in the hospital may be made to reach all that great class of invalids who suffer secondary infection from primary lesions about the teeth, as well as those suffering from only mouth infection. It really places in the hands of the internist specific methods by which he can reach a class of cases hitherto treated only by stimulation and supportive treatment. This work in our hands has included the treatment of iritis, myocariditis, endocarditis, gastric ulcer, chorea, acute nephritis, and the arthritides; in other words, those diseases dependent on the distribution of streptococcus viridans in the blood stream.

Now as to the cost of this work; that will depend on the size of the hospital and the number of patients involved, and I would advise that all hospitals employ at least one whole-time dental intern, as the work is necessarily tedious. The University of Minnesota is now graduating groups of men who pay special attention to this field of work, and it seems to me that an expense of $100 or $150 a month should secure newly graduated men who desire to obtain hospital experience. The work done by such a man is of the most exhausting character, and the amount that could be done in even a small hospital would be limited only by his endurance. Every dental intern should have the support of at least one trained nurse, who would assist him at all operations, prepare patients, care for the instruments, and keep records. In no case should patients be received or discharged, where dental service has been thought advisable and undertaken, without the O. K. of the dental intern.

Every hospital should have a room for this work, preferably illuminated by north night. This room should contain one complete dental outfit, including a switch-board, cautery, forceps, curettes, pyorrhea instruments, and flowing water. This outfit would be used for patients who are able to get out of bed. The room, however, should be large enough so that bed patients may be transported into it in their own beds, and there receive such necessary mouth treatment as they need and be wheeled back into their own rooms. We have found it exceedingly unwise and difficult to try to do special work in the mouths of patients in the wards. Our own equipment for this work has cost about $2,000, and my first assistant, who is directly responsible for the work in the hospital, is paid $100 a month.

PLAN WORK FOR CHILD WELFARE

Representatives of National Organizations Meet in Chicago to Create a General Program

At the call of the Council on Health and Public Instruction of the American Medical Association, a conference of child welfare was held at the association headquarters on Wednesday afternoon, October 18. The following organizations were represented: United States Public Health Service—Dr. W. H. Frost; Children's Bureau—Miss Julia Lathrop and Dr. Grace L. Meigs; Association for the Study and Prevention of Infant Mortality—Miss Harriet L. Leete, Mr. Albert Cross, Dr. S. H. Hamill, Dr. Philip Van Ingen, and Miss Gertrude B. Knipp; American Public Health Association—Dr. W. A. Evans and Dr. Lyman A. Jones; Conference of State and Provincial Boards of Health—Dr. J. N. Hurty (not present); Elizabeth McCormick Memorial Fund—Mrs. Dunlap Smith and Mr. Sherman C. Kingsley; General Federation of Women's Clubs—Mrs. F. D. Everett;

American Hospital Association—Dr. John A. Hornsby; Council on Health and Public Instruction of the American Medical Association—Dr. Frank Billings, Dr. H. M. Bracken, Dr. Lenna L. Meanes, Dr. Frederick R. Green, and Dr. Velura E. Powell.

The conference was called to discuss the work being done for child welfare, the possibility of outlining a common program in which all organizations and individuals interested could participate, and for the coordination of the organizations represented in carrying out such a program.

Dr. Frederick R. Green, secretary of the council, proposed the problem. He said that, while a good deal of child welfare work was being done, and in some cases very efficiently, the various organizations were not coordinating their activities and that they seemed to be overlapping, and consequently there was a good deal of wasted energy and wasted material and wasted funds. He thought it might be possible to so coordinate the work at present being done by various independent bodies, national and local, that it would result in greater efficiency, and perhaps even a program could be arranged that would pretty nearly cover the work for the betterment of child life. Dr. Frank Billings, chairman of the council, and Dr. H. M. Bracken spoke of the anxiety on the part of the council to bring some sort of order out of what seemed to be chaotic conditions, and Dr. Green stated that he thought the meeting might well open with a discussion of three or four questions, of which the following is one: Are there any factors that are of fundamental importance in the development of a program for child welfare, and, if so, what are they?

Mr. Albert Cross, of the Association for the Study and Prevention of Infant Mortality, suggested that he thought the subject ought to be analyzed and treated under six heads, as follows: (1) health, (2) education, (3) religion, (4) recreation, (5) sport, and (6) protection. He thought that by such an analysis as this, various organizations could be asked to take up the various phases and give them more adequate attention than if each organization was attempting to cover the whole general subject.

Dr. Hornsby, representing the American Hospital Association, said he thought Mr. Cross' divisions were at variance with the general scheme of organization of most child welfare societies, and that it would not only be simpler, but far easier, if even a more fundamental division were made; as, for instance, he thought the first thing to do was to find out how many children are born in this country, and that this subject alone would bring up the story of birth registration, and that work ought to be done in that field; that many states are now without adequate laws to provide for birth registration, and that in many states very efficient laws were not being enforced. He thought the next thing to be done was to ascertain the figures as to child mortality. Of course, those who died were effectively disposed of so far as child welfare work was concerned. Then the next problem was to study those who survived, and this study ought to be continued under three heads: (1) their physical well-being, (2) their mental state—that is, the number of defectives—and (3) their moral state, which would include child environment, and would go into correctional avenues as well as along many other lines. Then Dr. Hornsby thought that, after this part of the work was done, some sort of data should be secured concerning the present agencies at work in this field, the limitations of each, and he thought that by a survey in these directions some data might be secured on the overlapping by different organizations, and thus could be worked out an effective, comprehensive program on which such an agency as the present meeting promised could proceed either in an advisory capacity or by initiating definite action, nationally or locally.

Mr. Sherman Kingsley, of the Elizabeth McCormick Memorial Fund, thought that the children's bureau at Washington had accumulated an immense fund of very valuable information on several topics that would necessarily be included under child welfare, and Mr. Kingsley spoke of a bulletin, which his organization is at present getting out, to be sent to various child welfare agencies, and which would schedule nearly all subjects and the detailed factors in the study and execution of child welfare work. Mr. Kingsley confined his remarks largely to the city child and the agencies at work for his welfare, whereupon Miss Julia Lathrop, of the children's bureau of the Government, said that three-fifths of the necessary work must be done in the rural districts, country towns, and on the farms, and that this phase of the work must be emphasized in whatever was done, and it was her belief that no child welfare work could be comprehensively gone into unless the work was predicated on the care of mothers—that is, prenatal care. She expressed a good deal of feeling over the fact that, as Dr. Hornsby had said, no reliable data were at hand as to births and infant mortality.

Most of those at the meeting spoke on the subject along the above general lines. Dr. Frost, for the public health service of the Government, in the absence of Dr. Kerr, said that, while he had not been directly concerned with the child welfare work of the service, he thought that undoubtedly the service would want to be of use and to help in any way that the organization thought desirable. He said that no particular study of child welfare was now going on in the service.

After a conference lasting from 2:30 until 6:00 o'clock, the meeting concluded to appoint a committee of six to go into the subject in detail, and either to report back to the organizations which had sent delegates to the meeting or to the meeting of the whole committee. The committee named is as follows: Miss Julia Lathrop, Mr. Sherman Kingsley, Dr. J. W. Kerr, Dr. Philip Van Ingen, Dr. Meanes, and Dr. Green.

A HOSPITAL CIRCULATING LIBRARY

The Ladies' Auxiliary the Proper Body to Have Charge—Some Suggestions as to Management

In these days of rapid advance in medical research, surgical perfectedness, and hospital completeness of technic, many things are being tried, and often as quickly discarded because lacking in essential requirements. This one fact, however (and it is one which has always distinguished the American from the European hospital), has come to stay—nothing which will give the patient greater ease of mind and body, nothing which will shorten the actual confinement, nothing which will show you know the patient is human and not a mere "case," is too small to hold the attention of the attending physician and the hospital administrator.

We give our patients quiet, a beautiful outlook, provide easy beds, accessible electrotherapeutic and hydrotherapeutic equipment if we have the money, or perhaps basket weaving or clay modeling, to assist in the recovery and pass the time pleasantly; all of which things may have virtue in their own way, but there is a simple thing very often overlooked which any hospital, however small or weak financially, can and should have, and that is a circulating library for the general use of its patients.

Not all patients can or are allowed to read, it is true, but a large majority are permitted by the attending

physician to pass at least a part of the day in this way. For those who can read it should be the duty of every hospital, big or little, rich or poor, to have an accessible, readable, clean lot of books at hand. How can it be done?

Try this: Let it be generally known (start with the members of your board of directors or the board of lady managers) that you can use any good book of fiction, interesting geographical or historical work, not forgetting the children's books, and it will surprise you how quickly three or four hundred books will appear on your shelves; not "the latest," perhaps, but just as good for your purpose. They have all been read by the family and are now only in the way; of course, the lady of the house is glad to send them to you, just "to get rid of them."

Light fiction or interesting geographical stories will be found the most popular. In fact, one is surprised to see this or that litterateur or college professor reading a "Nick Carter" with relish while in the hospital. It must be quite "light" in order to hold the attention. Have the real, good, solid matter available, too, but do not expect it to be popular.

You now have the books. Proceed to list them in a plain record book, size about 10 to 12 inches, of 100 pages or more, with ruled columns as illustrated in the accompanying illustration (Fig. 1.) for "Accession Number," "Class," "Call Number," "Author," and "Title," grouping the fiction by themselves as "Class A," the children's as "Class B," and all others as "Class M."

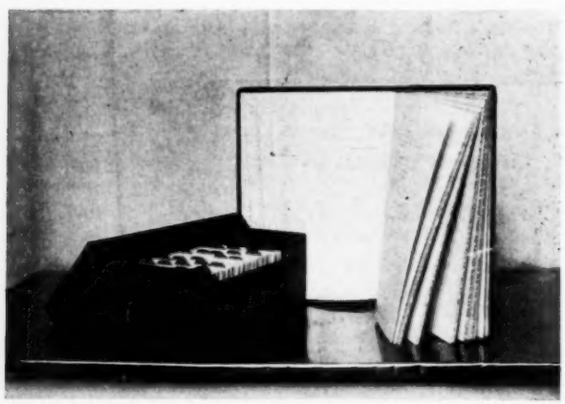


Fig. 1. Library record.

This may not be according to the classification of the American Library Association, but it is better for your purpose. You remember you want something accessible, and this means no "red tape."

Your books are now listed. Stamp, or with a book plate mark each one after the following manner:

Ohio Valley General Hospital

CIRCULATING LIBRARY

Vol. No......, the gift of

.....

PLEASE RETURN TO LIBRARY PROMPTLY.

It is well to give the donor credit in each book. This will stimulate other gifts. Place in the proper space the "Call Number" of this book. Then, on the outside, using a small Dennison label, again place the "Call Number" on the back of the book. Then double index each book, having one card for the author, the other for the title, as illustrated in the accompanying illustration (Fig. 2). Place in the lower left-hand corner the "Accession Number," and on the remaining space any explanation regarding the book which you may desire. For this purpose, use an ordinary stock size 3x5-inch card, which may be had from any stationer for a very small sum, and, to begin with, a small transfer card tray, costing not more than 75 cents, will be entirely adequate. Your books are now catalogued and ready to be placed on the shelves. If you have some attractive spot in which to shelve them, and where convalescents may come and read, so much the better; if not, any closet with plain shelves will do.

To get your books in the hands of your patients, have a loose-leaf memorandum book, with "Fiction" listed by itself, and the other divisions by themselves in alphabetical order, the titles and the authors separately. Use a loose-leaf, so that when additions are made from month to month, they may be added very easily for a period of, say, one year, and then, when the annual inventory is taken, the whole catalogue may be made over. Have one of these catalogues in each natural division of the hospital, each ward or floor, and encourage your patients to use it, and it will surprise you how many calls you will have for your books. In the front of this loose-leaf catalogue it is well to have a few simple rules pasted. The following might be suggested:

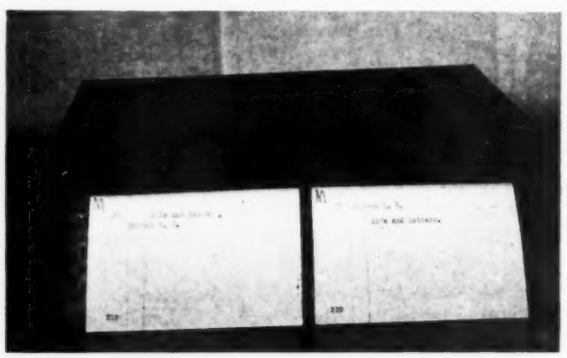


Fig. 2. Method of keeping library cards.

"This library is provided through the kindness of our friends, and in it you will find a number of books which will help you to while away the hours. Make free use of these books.

"In asking for books, mention to your nurse the number only, as they are catalogued in order.

"As soon as you have finished with a book, return it to the library for credit, for it will be charged in your name. Should another patient wish the same book, it will then be charged out to that patient, and you will no longer be responsible for it.

"Should you wish to make a donation to the library, gifts of books, or money, they will be greatly appreciated."

To be sure, if there are funds available, have the catalogue printed and in sufficient number to place a copy in every room or ward, but keep it up to date and revise it annually.

To obtain a book, the patient simply writes the number on a slip of paper, or the nurse does it for him; the nurse or messenger takes or sends it to the office, or, if there is a librarian, to the librarian, and the book is at once sent to the patient. As soon as it is read, it is returned to the library to be checked off. In the library a memorandum book is kept of the date when the book was taken out, its number, and the patient's name and room number.

As soon as a book is worn or soiled by general use, it should be discarded; always keep the stock fresh and attractive. A paper cover, to be changed each time the book goes out, would not be expensive.

PLINY O. CLARK.